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## The Loon on Lake Umbagog

By WILLIAM BREWSTER

From 'The Birds of the Lake Umbagog Region of Maine.' Reprinted by permission, from Vol. LXVI, Part I, of the Bulletin of the Museum of Comparative Zoology at Harvard College

**D**URING the earlier years of my experience at Lake Umbagog one could not go the length of it at any season when it was free from ice without seeing Loons. If the month were May or June the number seen was not likely to exceed half a dozen but in late summer or early autumn, after the young were out, as many as a dozen or fifteen might be noted. They frequented every part of the Lake preferring its central reaches and larger coves, where the water was free from vegetation and rather deep, but sometimes entering shallow, grassy coves and even narrow, winding lagoons like Leonard's Pond where I have surprised them on more than one occasion. If I am not mistaken, they were occasionally met with in the Lower Magalloway River and in the Androscoggin between the outlet and Errol Dam, but this impression is not confirmed by anything in my note-books. B Pond, C Pond, and Pond-in-the River always harbored at least one or two breeding pairs each, and there were many other equally secluded and still smaller bodies of water lying not far from the Lake in deep hollows encircled by wooded mountain ridges, to which they paid more or less frequent visits. As they offered conspicuous and attractive targets for rifle practice and were wholly unprotected, either by law or by popular sentiment, it was customary to shoot at them whenever opportunity offered. Often the progress of the steamer up the Lake was indicated and proclaimed by the frequent popping of guns fired from her decks at Loons and other water-fowl. This frightened away many of the Ducks, but the Loons were less disturbed by it seeming, indeed, to rather enjoy the excitement of occasional hair-breadth escapes from injury or death. I have seen even the old, black-headed ones rise in the water and flap their wings or indulge in outbursts of what seemed very like derisive laughter, when the bullets were striking thick and fast about them. Curiously enough they often permitted the noisy, smoke-belching steamer to approach them almost within shot-gun range, whereas they habitually gave as wide a





LAKE UMBAGOG

From the painting from nature by Hobart Nichols for the habitat group of the Loon in the American Museum of Natural History



berth as possible to small boats and canoes, however silently and skilfully paddled. Nor was a screen of grass or bushes, draped about the bows of a canoe, of the slightest avail against their keen power of observation, although other water-birds almost equally wary were frequently deceived by it. During the first ten or twelve years comparatively few Loons were killed in the Lake—probably never more than two or three in any one season and these mostly young birds. But with the advent of improved rifles, and the ever-increasing skill of those who used them, the Loons began to suffer more and more seriously. Nevertheless they continued to hold their own fairly well up to almost the close of the last century. Since then they have been growing fewer and fewer year by year until they have almost, if not wholly, ceased to breed in any part of the Lake. While it is beyond question that the gunners have had something to do with their disappearance, I am inclined to attribute it largely to the recent introduction of motor-boats with which the Lake now swarms and which, in my opinion, would alone have brought it to pass. In either case it is deeply to be regretted, for the Loon is an essentially harmless bird and incomparably the most interesting and attractive of all water-fowl that occur in this region.

It is by no means uncommon for Loons to appear in the Umbagog Region in spring before its lakes and ponds are wholly free from ice, and they sometimes linger in autumn until even the larger lakes are frozen over. Occasionally they come so early or stay so late that they can find no open water and must perforce take to the ice from which they are quite as powerless to rise as from the land. About January 1, 1886, as I learn from my guide, Will Sargent, three birds were seen on the ice of Richardson Lake by the care-taker at Middle Dam. When we went in pursuit of them, they flopped off over the smooth surface almost as fast as he could run, but were finally overtaken and captured. All three seemed to be in perfectly sound and healthy condition. One fought so savagely that he felt justified in killing it. The other two were liberated in a small space of water just above the Dam where a strong current prevents the formation of ice. Here they passed the greater part of the winter disappearing mysteriously, however, before the Lake reopened in the spring.

A fully-mature Loon in black and white nuptial plumage is an attractive and, indeed, noble-looking bird when seen under almost any conditions of environment. He appears to perhaps the best advantage when one has the opportunity to watch him in some secluded cove bordered by virgin forest, where he is wholly unconscious of human observation and not especially apprehensive of hidden danger. At such times his dignity of bearing and grace of movement are truly admirable. Now he glides slowly over the calm surface, occasionally stopping to look keenly about. Next he sips the water daintily as if merely tasting it. Then he may immerse his head to a little above the eyes, holding it thus for half a minute or more as he moves straight on for a distance of several rods, apparently gazing intently into the liquid depths below in search of prey—an interesting habit very characteristic of his tribe. Sooner

or later he will begin diving for fish with surprising energy and skill, for he is a past master of this art as well as that of swimming long distances under water. Certain of the Grebes and Mergansers may disappear beneath the surface as quickly and gracefully as he, but their downward plunges lack something of the finish and very much of the momentum which make his so impressive. Nor can any one of them travel so far and so swiftly under water as can the Loon. Curiously enough he habitually progresses much faster *beneath* than on the surface. Dr. C. W. Townsend has suggested that this is due chiefly to the fact—said to be definitely established—that moving bodies meet with less resistance when totally submerged than when partly on and partly beneath the surface. It may be so but, as I know from personal observation, the Loon, like many other aquatic birds, sometimes uses his wings when swimming under water. This I have witnessed only a very few times when the bird, hard pressed, was doubling back beneath a pursuing boat. On such occasions I have seen him develop a speed which seemed impossible of achievement by the aid of his feet alone. . . .

Loons, as I have said, seem unable to rise into the air from either land or ice. Nor can they do so apparently from perfectly calm, waveless water, although they sometimes make the attempt, especially when harried by men in boats, half-running, half-flying over it for perhaps a quarter of a mile, evidently trying their best to win freedom from it, but always, so far as I have observed, settling back into it at the last, after much fruitless effort. With the assistance of wind, however, they rarely fail to succeed, invariably rising against it. The stronger and steadier it blows, the quicker and more easily they get clear of the water and under full headway. A departing bird bound for some distant lake or pond lying beyond lofty hills or ridges commonly mounts upward in circles, or rather spirals, to a considerable height, before shaping its direct and level course. I remember watching one rise in this way over C Pond to an elevation of fully one thousand feet before it headed for Richardson Lake. It spent just twenty minutes in making the ascent. An incoming bird descending from a great height presents a beautiful and indeed thrilling sight. After circling a few times it comes hurtling down, on steep and more or less zig-zag inclines, with tremendous velocity, its stiffly-set wings making a sound like that of wind in pines. Although it checks its speed and changes its course to a nearly horizontal one before alighting, it usually strikes the water with considerable momentum, sending the flashing spray well into the air and "scooting" over the surface for two or three yards just after it folds its strong wings.

During ordinary flight the wings of a Loon sometimes make a continuous *whuf-whuf-whuf*, rather loud and very suggestive of the puffing of a slow-moving, hard-straining locomotive engine. It is especially associated in my mind with foggy autumnal mornings at Pine Point, when I used first to hear it and then to see the big birds dimly through the mist as they passed overhead just above the trees.



No one can—or at least once could—camp long on the shores of Lake Umbagog in summer or autumn without hearing by night, as well as by day, a great variety of vocal sounds made by Loons. To attempt to deal with all these separately would be tedious and, in my opinion, also unprofitable, for many of them appear to be closely similar to, if not mere variants, of, one another. Indeed, of all that I remember to have heard, only four seem sufficiently different and unrelated to merit descriptive appellations. These may be termed the *laugh*, the *wail*, the *hoot*, and the *cup*.

The *laugh* is a wild, ringing outburst, audible at distances considerably exceeding a mile, and varying greatly in character and duration. At times it seems to express derision or defiance; at others exultation, at still others sadness of spirit. Always it is musical in quality and delightfully suggestive of the places where it is oftenest heard. Ordinarily it consists of a series of four or five notes given very rapidly in a loud, clear, tremulous, falsetto voice. This utterance is commonly repeated twice and often as many as three or four times, at intervals so brief that the effect produced is that of an almost unbroken succession of sounds lasting, perhaps, for several seconds. It is oftenest heard thus in spring and early summer when it comes not infrequently to one's ears at all hours of the day and night, not only from birds swimming in the Lake but also from those flying over it high in air. Towards the close of summer and in autumn it may be shortened to two or three notes and sometimes to one, only, the first of the series, apparently, which is different from the others and lower pitched. These calls are much used by old birds anxious for the safety of newly-hatched young. Lucius L. Hubbard in his *Woods and Lakes of Maine*, 1883, has written at some length and very pleasingly (p. 86-90) about the voice of the Loon; he appears to regard these old bird calls as quite distinct from any of the notes which make up the laugh, but I fail to differentiate them from the latter.

The *wail* is a plaintive long-drawn *er-lòo* or *woo-lòo-oo*, sometimes supplemented by an additional terminal syllable high pitched and having a rising inflection, which changes or extends the utterance to *er-loo-èe*, or *woo-lòo-oo-èe*, occasionally shortened to *loo-èe*. This cry is used chiefly by solitary Loons, both old and immature. They give it mostly by night or just at daybreak and invariably when in the water. At all times grateful and restful to the senses of an appreciative human listener it is especially so when, tempered by distance and imbued with mystery by reason of darkness, it falls on the ear from far out on the slumbering Lake, like the reassuring watchword of some clear-voiced sentinel stationed there. The guides assert that when it is uttered by day during perfectly calm weather and after prolonged silence on the part of the bird, it is an almost infallible indication of the near approach of wind. At first I was inclined to ridicule this belief, but eventually I learned to put strong faith in it. For I have seldom known the bird's prophecy thus expressed to fail, whereas I have seen it fulfilled almost countless times, not infrequently



with such promptness and emphasis that the Lake began to be ruffled by the first eddying puffs of wind within five minutes after the warning cry was heard, and became covered with racing, white-capped waves only ten or fifteen minutes later. These Loon fore-told breezes start oftenest under cloudless skies which to human eyes present no indications of the impending change. It may lead merely to trifling and temporary local disturbance in generally fine and settled weather, or to a violent, protracted, and widespread storm. In either case it is not less mysterious than remarkable that the Loon can be thus forewarned of its oncoming.

I find the *hoot* described in one place in my notes as "a strange, low, yet penetrating, hooting or tooting sound like that made by blowing into a bung hole"; in another as "a rather deep and hollow *hoo* varying to an abrupt *ah* so very human in quality that it might easily be mistaken for the call or ejaculation of a man." It is commonly repeated twice or thrice in quick succession, but sometimes is given only once. I used to hear it oftenest in September and in the early morning when the Lake was calm and enshrouded in fog. Whenever I traced it to its source I invariably found two Loons swimming near together and perhaps sporting with one another. It can be heard at a distance of nearly a mile when the air is damp and still.

The *cup* is simply that and nothing more—a short, abrupt, staccato cry not unlike that of the Florida Gallinule but louder. I have heard it but a few times, usually when two or three birds were swimming in company.

There should be no doubt in the mind of anyone who loves and enjoys the wilderness as to the desirability of protecting the Loon by law and of abstaining from wantonly disturbing him in his chosen haunts. He is one of the most admirable of all wild creatures, and his presence adds immeasurably to the interest and attractiveness of the water he frequents, whether they be those of inland lakes and rivers or of stretches of ocean bordering on the coast. Fishermen of whatever kind or class should especially prize and cherish him, since they have more opportunities than most other men of watching and enjoying him, yet they are given to decry him at all times and to slaying him whenever opportunity offers, because he lays claim (by prior right be it remembered) to a modest share of the animal life which they destroy by wholesale. The chances are that he is more a conservator than the exterminator of valuable food fishes, for the spawn of these is sought and devoured by essentially worthless ones on many of which he is known or believed to prey. If as may be admitted he occasionally gobbles up a fine young Salmon or Trout of medium size what does it matter? Their numbers are countless, his by comparison pitifully few. Moreover, they can be and are multiplied quickly and endlessly by artificial propagation, while the increase of his race cannot be so ordered and under the most favoring conditions is very slow. He should therefore be made welcome to as many of them as he desires, for their surplus could not well be put to better use. If the fishermen suffer any loss in consequence, it is not

likely to be appreciable, nor are they entitled to compensation for it. When Deer protected by law molest cultivated crops, the farmer can justly claim from the State remuneration for whatever they destroy, for he has produced the crops and they belong exclusively to him, but fish in public waters are public property, at least until caught and the State or Federal Government can do what it likes with its own. No one objects to the expenditure of very considerable sums of public money for the maintenance of fish—or flesh-eating birds and other animals confined in zoölogical parks. Why should not a reasonable number of Loons, Herons, Eagles, and other equally beautiful and attractive birds in which innumerable people take deep interest be permitted to subsist at only trifling and indirect cost to anyone on public bounty? The principle that they should be allowed to do so has been recognized and applied in a few States which have granted some of the protection by law, but as yet it has not received anything like the general endorsement which it merits. It should be advocated boldly and strenuously whenever occasion requires, and sportsmen and fishermen who object to it should be made to understand that it is not enough to show that creatures which they desire to have destroyed prey to some extent on others which are of especial value to them. Unless they can also prove that such depredations are wide-spread and really serious, their wishes and interests should not be considered when they conflict with a still greater number of people who cherish animal life chiefly because of its æsthetic value and attraction.

## The Eastern and the Western Meadowlarks

By CRAIG S. THOMS, Vermilion, S. Dak.

**F**EW birds are more difficult to photograph than the Meadowlark. The series of pictures here presented were obtained during a period of over ten years, and between the photographs are failures innumerable. A camera placed near their nest seems to suggest a lurking animal to them, and when the grass is brushed aside before their nest to secure a clear view, the environment is so changed as to make them fearful.

In 'Birds of South Dakota' the writers make the eastern line of the State about the dividing line between the Eastern and Western Meadowlarks admitting that the range may vary considerably east or west, and that for some distance either way the varieties doubtless interbreed. At Vermilion, South Dakota, specimens with decidedly western song have, when taken, shown the coloration of the eastern bird.

The A. O. U. 'Check-List' includes four varieties of Meadowlarks—the Eastern, the Western, the Texas, and the Florida. The Western variety is the singer of the group, and seems to be at its best in South Dakota. During the past year a musical South Dakota friend of the writer's took a course in





FEMALE WESTERN MEADOWLARK AT NEST AFTER  
FEEDING YOUNG

Economic Ornithology in the University of Illinois, in which four hours a week were spent in the fields. When he heard the song of the Eastern Larks he thought they were "just tuning up." When he found that the song did not change, he said to his professor: "They sing as though they all had colds."

"The song of the Western Lark," says the South Dakota Bulletin, "is a wonderfully exuberant expression of bird music. It may be heard for half a mile and fairly fills the prairie. There is not room enough for it anywhere else. The singer is sure of his audience and is thrilled and inspired by his surroundings. The songs and calls are exceedingly varied, but the rapturous love song,



NEST OF WESTERN MEADOWLARK, WITH  
A WELL-WOVEN ROOF OVER A FOOT LONG



WESTERN MEADOWLARK ON NEST



rendered in full flight, is Nature in her most ecstatic mood, and nowhere is the song finer than in South Dakota."

The writer has just returned from a birding trip of 800 miles or so through northern South Dakota in the interests of the University Museum. Many birds' nests were found and admired, but the Meadowlark's nest was queen of them all. As all know, these birds are Starlings, and therefore weavers. The nest, placed on the ground, is well concealed in the standing grass. Over it is made a well-woven roof of dried grass, the front of which often extends beyond the front of the nest like the porch of a house. The roof of the nest in the picture is over one foot from back to front. Add to this a runway of two feet or so through the standing grass to the entrance, from which the exquisite white, brown-spotted eggs may be seen, and you have the most charming bird-home of the prairie.



MALE WESTERN MEADOWLARK AT NEST WITH  
FOOD FOR YOUNG

### Pegleg and His Friends

By JOHN B. MAY, M.D., Cohasset, Mass.

**T**HIS is the tale of three Brown Thrashers. Most Thrashers, as every bird-lover knows, have pretty long tails, but very few perhaps have as long tales as these three.

Near Thomasville, Georgia, there is a beautiful private estate surrounded by park-like woods of long-leaf pines, among which wind little swampy brooks or 'branches' where magnolias, sweet gums, tulip trees, and oaks rise above dense thickets of flowering jasmine, thorny smilax, and rustling canes. The plantation house itself is the center of extensive plantings of azaleas, roses, and honeysuckles, with occasional red-berried hollies and towering cedars. Here, every year beginning with 1915, with the exception of 1918 and 1919, Mr. S. Prentiss Baldwin, of Cleveland, has caught, banded, recorded, and



released large numbers of wild birds, and here, in the winter of 1924, it was my privilege to spend a number of pleasant weeks assisting in the banding activities, as the guest of the owner of the plantation.

Near the little white cottage which I made my headquarters during my visit was an old pear tree, completely overgrown by an aged wistaria which made a very dense shelter, an ideal cover for birds. I soon found that this spot was the favorite roosting-place, one might say the chosen winter resort, of a Brown Thrasher. One of my bird traps, of the type known as the "government sparrow trap," was located about fifty yards from this tree, and here, on January 20, 1924, I captured this Thrasher during a hard rainstorm. On the Thrasher's right leg was a narrow aluminum band bearing the number 53085. He had lost the foot on the other side, and the leg ended in a round knob or 'button' which showed clearly that a long time had elapsed since the bird had suffered the amputation.

I had all Mr. Baldwin's records at my disposal and quickly located the account of 53085. Mr. Baldwin had first captured the bird four years previously, on February 19, 1920, and in the very same trap where I had caught him. (I say 'him,' but the sex is unknown.) After the first formal record of the capture was written: "Left leg off at mid-tarsus and well healed in a button." About a fortnight after this first entry, the bird was again captured in the shrubbery surrounding the main house, and this time in company with another Brown Thrasher, the latter already bearing the number 19247.

These two birds have perhaps the most interesting histories, as recorded briefly in the records at Inwood, of any of the 2,000 and more individuals of over forty species, which have been captured and banded there. Their combined histories throw not a little light on several subjects of interest to the student of bird-life, and they are very suggestive of the results which may be hoped for in this new method of bird-study.

Brown Thrasher 19247 has already had his story published in the pages of *The Auk*, in articles written by Mr. Baldwin and by Mr. L. R. Talbot, who visited the station at Thomasville in 1922. Briefly, he was first caught and received his band on February 27, 1915, with another Thrasher, apparently his mate, who was numbered 19246. This latter bird quickly acquired the 'trap habit' and reported two or three times daily for a week or more. 19247, on the other hand, was rather shy, and was captured only twice that year.

The next season the two birds were back again, acting in the same characteristic ways, 19247 being caught only three times, while its mate, 19246, was captured ten times. In 1917 we again find 19247 at his favorite spot, but with a new mate, a bird banded the previous season and numbered 31783, his former mate having disappeared and presumably died. He was captured three times this year, on successive days in mid-March.

Then for two years Mr. Baldwin was unable to visit Inwood, and no records were made. But in 1920 our Thrasher reported four times, on February 16



and 20 and March 8 and 11. Again his former mate had disappeared, and in its place was another Thrasher, this time my friend 53085. And Mr. Baldwin made this comment regarding the missing left foot of this bird: "My conscience troubled me, for I feared it might possibly have been a band that caused it the loss of its foot and that it might be the same mate as in 1917," that is, No. 31783.

In 1921 neither of these birds was trapped at Inwood, but in 1922 they both reappeared and were captured by Mr. L. R. Talbot, who carried on Mr. Baldwin's operations that year. No. 19247 was then at least eight years old, a pretty old bird as far as our knowledge of wild birds goes, and the thin aluminum band was badly worn and bent. In attempting to straighten it the band broke, and 19247 received a new number, 57742. At last he seemed to have acquired the 'trap habit,' and Mr. Talbot recorded him seven times between March 28 and April 8 that year. Since then he has not been recaptured and it is reasonable to expect that he has passed on, though we still watch for him and hope to make another record for '19247 *alias* 57742.'

And now to return to his last mate, 53085. We have learned that a wild but apparently normal Brown Thrasher may live eight years or longer, but how long can a bird survive under the handicap of having only one foot? That is answered in part by this bird, and the story is not ended. First caught in 1920, when an adult bird of at least the previous spring's brood, it then showed a well-healed amputation stump. While the loss of this foot may possibly have been caused by a band, the chances of such a mishap occurring are very slight, and it is impossible definitely to connect this bird with 31783, banded in 1916.

In 1922 Mr. Talbot caught this bird twice and recorded: "His infirmity did not seem to trouble him in the least."

In 1923 the traps were operated by Mr. T. E. Musselman for Mr. Baldwin, and 53085 reported three times.

My own operations at Inwood commenced on January 18, 1924, and two days later 53085 came into a trap, as described above. He was then at least five years old. I wanted pictures of all old return birds, but it was Sunday, just dinner time, and raining hard, and I took pity on the good-hearted photographer and did not take 'Pegleg,' as I promptly named him, to town to the studio. But I set a special trap under the wistaria-canopied pear tree. and Tuesday morning early Pegleg was waiting for me. I put him in a carrying-cage and we went the two miles to Thomasville in an auto to the photographer. As I lifted the cage from the car at the studio, the door fell open, there was a swish of brown wings and a flirt of a long tail, and a moment later Pegleg was perched on a telephone wire looking calmly down on the main street and the Soldiers' Monument. Another moment and he had disappeared into some near-by trees, and we sadly turned our faces homeward.

I kept the baited trap under his favorite tree, however, and six days later I saw a one-legged Thrasher in the tree, and with the glasses saw that it was a banded bird. Two days later, he came into the trap, none the worse apparently



for his travels and perilous adventures. Back to the photographer we went and there was no slip this time, so that the resulting picture is here shown. And did Pegleg object to this sort of treatment? Hardly. In fact he seemed to like it, for that same afternoon he was back in the trap, begging for another auto ride. As he didn't get one right away, he began coming into the trap daily asking for a ride. Almost every time we looked across from the cottage to his tree, we would see a bunch of brown feathers in the trap, and say, "Pegleg's in again." He would wait quietly for us, and when we released him, would flutter only a few feet, usually into the wistaria above the trap. If we took him out too soon, before he had finished his meal, he would very quickly return, so that some days we took him out as many as five times, and I finally took away his special trap and placed it elsewhere. Several days I actually saw him asleep in the trap, his head tucked back under his wing, enjoying a sun-bath. And he learned in time the way out of the trap as well as in, and sometimes



PEGLEG AND LONGTAIL

Brown Thrashers photographed at Thomasville, Ga., February 10, 1924



would run to the funnel-shaped entrance, duck his head, and slip out without waiting to be released.

I was still hoping to capture 19247, *alias* 57742, and set a large 'house trap,' some six feet square, on the edge of the shrubbery in his former haunts. Finally I put 53085 inside this cage as a decoy, and soon another Thrasher appeared, very much excited, and began running around the large cage, flying over it, and making a tremendous fuss, but traveling so fast it did not seem to see the small openings into the trap. When at last I caught it, it was by means of a 'pull-string' trap placed beside the larger one.

This Thrasher, the third of our trio, bore the number 53092. The records showed that he was first banded on February 29, 1920, a 'leap-year' bird. Perhaps that is why it was so persistent in its attentions to 53085, in this later leap-year of 1924. Again we visited the photographer, and the two birds posed together for their photographs. Originally banded four years ago, the records showed that they were caught within ten days of each other, in the same trap, and at the same location where I first made the acquaintance of old Pegleg.

53092 repeated twice in 1920, once each in 1921 and 1922, and six times in 1923. But he is still rather cautious or 'trap shy.' This bird had a very long tail and seemed decidedly larger than 53085.

These three birds have already answered some of our questions, at least in part. We know that a wild Thrasher may live eight years or longer; that one may live four years with only one foot; that they may return year after year to the same locality and even to the same favorite tree or clump of bushes; that a two-mile automobile ride does not disturb their sense of direction or 'homing' instinct; and that proper handling of trapped birds does not affect their welfare or even unduly frighten them. Many other things may be learned from this fascinating new pursuit, which combines sport and science, and whose possibilities are just beginning to be realized.

As I wrote these last lines at Inwood, I glanced out of my window and there was a banded Brown Thrasher, not Pegleg, busily engaged in picking up food outside one of my traps. Was it 19247? Will we ever find him again? And do these Thrashers in Georgia stay here to nest, remaining in one locality throughout the year, or do they perhaps journey hundreds of miles before taking up their household cares? (Unfortunately no trapping has been done at Inwood later than April.) Will I ever run across one of these birds at my Massachusetts home, or at my camp among the mountains and lakes of New Hampshire? Are they real Southerners, or just 'wintering in the South' like so many of their neighbors? Some day we may know the answers to these questions.



SCENES IN A GREAT BLUE HERON COLONY IN LIVINGSTON COUNTY, MICHIGAN  
Photographed by Walter H. Hastings



## The Increase of the Starling

By W. J. CARTWRIGHT, Williamstown, Mass.

THE number of reports of the Starling (*Sturnus vulgaris*) being seen for the first time in scattered places and my own experience in finding this bird now established in places where it was rare only a few years ago interested me in making a study of the increase of the Starling in this country. For this purpose BIRD-LORE's Christmas Census seemed to be the best source of information obtainable and so I traced back the reports of this bird to the first census, in the year 1900, and gathered the statistics as there given. The study proved so interesting that I am submitting it to the readers of BIRD-LORE that they may have the benefit of the results of my research.

It is doubtless well known that the Starling was introduced from England in 1890, the first birds being released in Central Park, New York City, during that year. Naturally the first reports were from this spot, and this was the only place in which they seemed to be found for the ensuing three or four years. But from this as a starting-point the bird is spreading fan-wise over the country. The expansion at first, according to available reports, was toward the south and northeast. In the 1922 census there are reports from thirteen States where this bird is found, with the important fact that at last the Starling has begun to extend its territory to the west also. In previous years reports all came from the Atlantic States, but that year's reports include Ohio. The central and western part of New York State has also been invaded during the last few years according to the census reports.

During the first ten years the number of States from which reports of this bird came increased from one to three. During the second decade the number advanced to eleven, showing a more rapid increase.

A glance at Table I will show this increase in a definite manner. Starting first in New York State, where the only reports came from for the first four years, we see that it then began to extend its territory both ways, being reported in 1904 from Connecticut and New Jersey. There it remained for eight years, though in larger number of individual places in those States. Then in 1912 it again spread in both ways, being found in Massachusetts and Pennsylvania. The very next year reports came from Rhode Island and Vermont. In 1917 we find it reported from New Hampshire on the north and Maryland and the District of Columbia, which I am regarding as a separate State, on the south. In 1920 Virginia reported it for the first time.\*

The total reports of the bird, it will be seen, have increased from one in the first census to eighty-one in a period of twenty-three years, the numbers of reports showing, aside from a few fluctuations, a steady increase in the period covered by the Christmas Census. The apparent decrease in some places in

\*Mr. W. W. Worthington writes us that he captured a Starling on Amelia Island, northeastern Florida, Jan. 24, 1918, and later saw a flock of six or eight there.—ED.

TABLE I

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
New Hampshire.	..	..	..	..	..	..	..	..	..	..	..	..
Vermont.....	..	..	..	..	..	..	..	..	..	..	..	..
Massachusetts..	..	..	..	..	..	..	..	..	..	..	..	..
Rhode Island...	..	..	..	..	..	..	..	..	..	..	..	..
Connecticut....	..	..	..	..	1	2	6	7	7	5	9	5
New York.....	1	2	2	3	2	3	4	7	13	10	12	7
New Jersey.....	..	..	..	..	1	1	1	3	5	5	12	11
Pennsylvania...	..	..	..	..	..	..	..	..	..	..	..	..
Delaware.....	..	..	..	..	..	..	..	..	..	..	..	..
Maryland.....	..	..	..	..	..	..	..	..	..	..	..	..
Dist. Columbia..	..	..	..	..	..	..	..	..	..	..	..	..
Virginia.....	..	..	..	..	..	..	..	..	..	..	..	..
West Virginia..	..	..	..	..	..	..	..	..	..	..	..	..
Ohio.....	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	1	2	2	3	4	6	11	17	25	20	33	23

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
New Hampshire.	..	..	..	..	..	1	2	1	1	1	2	2
Vermont.....	..	1	1	1	1	1	1	1	1	2	2	3
Massachusetts..	1	2	2	5	5	5	5	13	9	12	10	13
Rhode Island...	..	1	1	1	2	1	2	2	1	4	4	3
Connecticut....	6	10	7	11	9	8	6	7	7	8	9	8
New York.....	12	14	12	8	11	17	10	18	17	18	23	23
New Jersey....	10	8	8	9	10	12	14	13	13	14	11	13
Pennsylvania...	3	5	5	6	3	11	5	9	10	6	13	8
Delaware.....	..	..	..	..	..	..	..	..	..	..	1	..
Maryland.....	..	..	..	..	..	1	..	2	1	2	2	..
Dist. Columbia..	..	..	..	..	1	2	..	1	..	1	1	..
Virginia.....	..	..	..	..	..	..	..	..	1	1	2	4
West Virginia..	..	..	..	..	..	..	..	1	..	..	..	..
Ohio.....	..	..	..	..	..	..	..	..	..	..	1	2
Total.....	32	41	36	41	42	59	45	68	61	69	81	79

the last census taken is due not to an absence of Starlings but to the omission of reports from a number of places regularly reporting previously, as there are no reports from Delaware, District of Columbia, or Maryland.

Another way in which the growing abundance of the Starling can be expressed is to note that in 1904, in the States where the bird was reported, only 18 per cent of the censuses reported it. In 1910 the number of places was 49 per cent, while in 1923 the percentage of reports increased to 72 per cent.

A study of Table II also shows this steady increase, this time in the number of individual birds reported both in the States and in the grand total for each year. This does not mean simply that more places are reporting, as might seem at first glance, but that the individual census-takers report more birds seen. This can readily be seen by comparing the reports from Vermont in the two tables. During the years 1913 to 1920 inclusive, the reports of the Starling came from only one place as we see in Table I, while Table II shows that the number of birds increased during that period.

Table II shows the increase of the Starling in larger figures, but it is not quite so accurate as the other because of the possibility of some individual



TABLE II

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
New Hampshire.	..	..	..	..	..	..	..	..	..	..	..	..
Vermont.....	..	..	..	..	..	..	..	..	..	..	..	..
Massachusetts..	..	..	..	..	..	..	..	..	..	..	..	..
Rhode Island...	..	..	..	..	..	..	..	..	..	..	..	..
Connecticut....	..	..	..	..	5	5	85	125	294	45	183	257
New York.....	4	99	17	10	4	145	118	880	375	305	1005	492
New Jersey....	..	..	..	..	3	130	18	200	194	59	320	962
Pennsylvania...	..	..	..	..	..	..	..	..	..	..	..	..
Delaware.....	..	..	..	..	..	..	..	..	..	..	..	..
Maryland.....	..	..	..	..	..	..	..	..	..	..	..	..
Dist. Columbia	..	..	..	..	..	..	..	..	..	..	..	..
Virginia.....	..	..	..	..	..	..	..	..	..	..	..	..
West Virginia..	..	..	..	..	..	..	..	..	..	..	..	..
Ohio.....	..	..	..	..	..	..	..	..	..	..	..	..
Total.....	4	99	17	10	12	280	221	1205	863	409	1508	1711
	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
New Hampshire.	..	..	..	..	..	297	123	4	4	3	16	19
Vermont.....	..	30	3	2	4	4	3	40	50	24	29	96
Massachusetts..	42	86	72	226	292	228	150	572	657	417	1067	2913
Rhode Island...	..	200	1000	206	559	500	603	59	200	119	385	431
Connecticut....	178	1700	799	1396	650	1426	925	776	1112	1526	954	1459
New York.....	964	1501	1128	2678	872	1905	1013	2335	1814	3355	2137	4889
New Jersey....	374	1040	571	636	1196	1489	1637	594	510	1491	895	4701
Pennsylvania...	21	38	122	39	67	141	77	264	583	683	1280	491
Delaware.....	..	..	..	..	..	..	..	..	..	..	2	..
Maryland.....	..	..	..	..	..	15	..	126	900	209	36	..
Dist. Columbia	..	..	..	..	20	19	..	14	..	34	40	..
Virginia.....	..	..	..	..	..	..	..	113	185	60	328	..
West Virginia..	..	..	..	..	..	..	..	I	..	..	..	..
Ohio.....	..	..	..	..	..	..	..	..	..	..	14	61
Total.....	1547	4596	3695	3183	3660	6024	4531	4685	5943	8046	6927	15388

birds being counted more than once and because of inaccuracy in counting on the part of some of the census-takers. This last revelation was a disappointment in using the Christmas Census as a source of information on which to base real conclusions alone. The estimated figure was clearly given in place of an actual one in not a few cases, as was quite obvious by the round numbers used, such as: 250, 400, etc. Then still worse were single reports of 1,000 and 2,200, which were given. It may not be out of place to add here that the value of the Christmas Census depends on its accuracy. While it is true that scientifically accurate counts of free-moving birds cannot be made, yet it does seem that a greater degree of accuracy could be gained by a little more care in observing and counting as many birds as possible in a given flock by checking up counts made at other times or by a study of photographs of flocks of birds in the air.

The years in which there seems to be an abnormal increase, followed by a decrease the next year or following years, are the ones where obviously these estimated counts are given. For example, in 1907 one observer reported 500 and another 100 in New York City. The 1917 census includes all the even

hundreds from 100 to 500 inclusive, and the report of the census for Christmas, 1921, contains the above-mentioned 1,000 and 2,200.

Aside from these doubtful statistics, the table shows clearly that the Starling is both increasing in numbers and spreading over the country. At first they were found only in the cities, but during the last few years reports come also from the rural districts, as many bird-students have noted in their own regions. Now one is just as liable to see them perched in the top of a tree near a barnyard as on the cross on top of a city church.

A single species of birds that increases in numbers reported at a given time from four to over 15,000, and from one spot in a single State to 79 places scattered over several States, in itself shows that the bird is fast increasing in this country. Besides this, reports of the bird being found in the provinces of Quebec and Ontario, Canada, in the last two issues of *The Auk* show that the Starling has spread even farther than the Christmas Census reveals.

I will not attempt to accuse the Starling of driving out our native birds, though I think such evidence could be had, nor will I defend it. I am just stating the case as I find it from the recorded statistics.



PINNATED GROUSE ON NEST  
Photographed by H. and E. Pittman, Manitoba



# Notes from Field and Study

## Glenolden Notes

The account in May-June BIRD-LORE of the Carolina Wren that wintered in Mrs. Rhoads' conservatory reminded me of an unusual experience we had with two Carolina Wrens. For some time we had tried in vain to trap and band the Wrens who were always about but not to be caught. On November 4 of last year, Mr. Gillespie opened an outside door leading to a small porch entirely screened, and at once called excitedly to me to come. Within the screened area were two Carolina Wrens. There seemed to be absolutely no way by which they could have entered, but a search revealed a break in the screening about the size of a silver dollar. This hole opened on to a thick growth of Kudzu vine. The Wrens had undoubtedly been darting about in the dead and leafless tangle, and thus found the opening. We were able to catch them in a butterfly net without harming them, and when they flew away from us each wore a numbered aluminum band on the right leg. Each Wren has been captured several times since in the traps, and quite recently both were in one trap together. We shall be interested to see if the pair remain permanently together, or if each seeks a new mate.

On November 18 we found a Winter Wren had entered the porch through the same little hole in the screening. He was so tiny it was almost impossible to hold him, but we managed to place a tiny band on his leg, and saw him twice afterwards in the woods.

In connection with the account of the Phoebes who nested in the well, and whose young were obliged to make a difficult initial flight in order to get out, I would like to note our observation of the nesting of a pair of Crested Flycatchers. Of five fledglings, four were seen flying away from the nest for the first time. One flew some seventy-five feet, ignoring stopping-places in trees that he passed, and finally landed high up in a tree. Each of the four flew

naturally and unhesitatingly. Since the members of the Flycatcher family are dependent for their food on flight, the ability to fly may develop more readily than with the young of other species.—(MRS.) MABEL GILLESPIE, *Glenolden, Pa.*

## Migration Notes at Detroit

The fall migration of 1923 in the vicinity of Detroit was noteworthy on account of the abundance of birds noted. In the case of several species this was no doubt a local incident due to temporary changes in migration routes. There was a heavy wave of migrants on September 9, also a larger one on October 6. On the latter date a visit to one of our local parks revealed in large numbers Flickers, Meadowlarks, Pine Siskins, Goldfinches, Vesper, Song, and Fox Sparrows, Juncos, Towhees, White-breasted Nuthatches, Brown Creepers, Golden-crowned Kinglets, Olive-backed and Hermit Thrushes, and Robins. In smaller numbers were seen Black-throated Blue Warblers, Blue-headed Vireos, Lincoln's and White-throated Sparrows, Winter Wrens, Tennessee Warblers, Catbird and Purple Finch. Some strange visitors noted at the same time were a Mockingbird and Carolina Wren, both very rare here. At about the same time the preceding year a visit to the same place found it almost deserted by birds. On Belle Isle, birds seemed to be much more abundant than usual.

Some dates of arrival and departure follow: Common Tern, to Sept. 24; Goshawk, Sept. 29; Solitary Sandpiper, Sept. 15; White-crowned Sparrow, Sept. 28; White-throated Sparrow, Sept. 30; Junco, Sept. 30; Fox Sparrow, Sept. 29 to Oct. 18; Golden-winged Warbler, Sept. 9; Yellow-breasted Chat, Sept. 9; Black-throated Blue Warbler, Sept. 9 to Oct. 6; Redstart, abundant in migration, Sept. 9 to 22; Parula Warbler, Sept. 22; Black-poll Warbler, abundant, Sept. 22 to 29; Winter Wren, Sept. 9 to Oct. 6; Brown

Creepers. On Sept. 30, I saw more Brown Creepers than I have ever seen before in one day. One was seen on a telephone pole back of our house in the city, and in the woods two or three were in sight all the time; Chickadee, became common in the woods, Oct. 12; Golden-crowned Kinglet, Sept. 22.—RALPH BEEBE, *Detroit, Mich.*

#### Brown Pelican Caught by a Sea-Lion

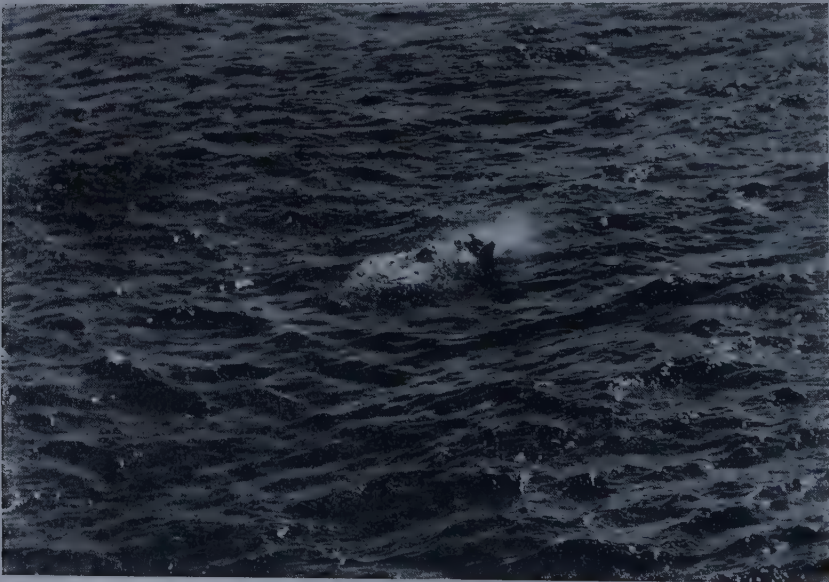
The accompanying photograph, given us by Capt. G. S. Dexter, of the S. S. 'Santa Luisa,' records a tragedy observed by him in the Bay of Antofogasta, Chile, June 13, 1924. The waters at the time were teeming with the small sardine-like fish locally called 'anchovetas,' which form the principal food of

the water, the photograph showing the confusion created by the unfortunate bird's struggles.—ED.

#### Wild Birds in a City Yard

I have noticed recently in our daily papers the opinion expressed that even were the English Sparrow eliminated, it would be impossible to induce our native wild birds to visit our city yards.

May I, in reply to this, give BIRD-LORE a list of those that have made my yard a resting place, returning each spring on their way northward? None have nested except the Robins, for against the hordes of English Sparrows I am powerless. Consequently the only inducement that I can offer is a bird-



the Cormorants, Boobies, and Chilean Brown Pelicans of the coast of Chile and Peru. As usual under such circumstances these birds were present in great numbers and were preying on the fish from above, while sea-lions were as eagerly attacking them from below. It thus happened that a Pelican, in diving for his booty, plunged downward into the open jaws of a sea-lion which promptly grasped it and drew it almost wholly beneath

bath and protection from cats. My yard is moderately large, with one or two trees, and is in the heart of Baltimore. I append the list of my charming and welcome visitors. Some have appeared regularly every spring, some but one season.

Numerous Brown Thrashers—sometimes as many as four at a time; Ovenbirds; Hermit Thrush; Maryland Yellow-throat; Catbirds; Sapsuckers; Black and White



Creeper; Towhees; Juncos; White-throated Sparrows; White-crowned Sparrows; Scarlet Tanager and mate; Cardinal and mate; Chestnut-sided Warblers; Robins; Least Flycatcher.

After a shower one spring afternoon I saw in my yard at one time Robins, a Catbird, a pair of Towhees, an Ovenbird, and a Chestnut-sided Warbler. I think that this proves what might be hoped for in our yards and parks under happier—that is, English Sparrow-less—conditions.—MRS. THOMAS B. GRESHAM, *Baltimore, Md.*

### Brush Shelters

During the spring of 1922, I placed a pile of brush in my garden for the accommodation of the Song Sparrow. Near to this pile of brush I placed a pan about three inches in depth which was always kept filled with water. My wish was that these lovable and very beneficial birds should harbor about this especially prepared spot so that I might have the pleasure of hearing their beautiful song and also have their valuable assistance in helping to keep the insect pests under control. The venture proved to be very successful, for they have reared a family of five and, due to the voracious appetites of the young, the insects are being somewhat held in check.—GEORGE R. LESTER, *Mountain-home, Pa.*

[Made in the fall, brush-piles make good shelters and feeding-stations.—ED.]

### The Black Tern at Plainfield, N. J., in Spring

On May 14, 1924, I made a trip to South Plainfield Pond and on reaching the bridge, at once noticed, together with a large flock of Barn Swallows, a much larger bird flying over the water. Fortunately, I had my field-glasses with me and the next half hour was spent in watching a Black Tern in full breeding plumage flying gracefully over the pond. The bird seemed quite indifferent to the frequent motor trucks and automobiles passing along the road and on one occasion came within fifty yards of where I was standing. In the black plumage this species

is, of course, unmistakable. I have several fall records of this bird at South Plainfield but have never seen it there in the spring.—JOHN T. S. HUNN, *Plainfield, N. J.*

### Duck Hawks Still in Albany County, N. Y.

Although the nesting of the Duck Hawk is noted, in Albany County, N. Y., but once in Eaton's 'Birds of New York,' this bird still breeds there. On the palisades of the Helderberg Mountains, 22 miles from Albany, a pair reared one young bird this season. This was on a state reservation, John Boyd Thacher Park. Visitors to this park may see the Hawk towards evening flying from one point of rocks to another.

The park is at an elevation of 1,200 feet and is an excellent place for bird-study. Such rare birds (for this section) as: Hermit Thrush, Louisiana Water-Thrush, Pileated Woodpecker, Magnolia, Blackburnian, and Nashville Warblers, Juncos, and others are fairly common here.—EDGAR BEDELL, *Waterford, N. Y.*

### The Hawk and the Starling

Some time ago, about eight o'clock in the morning, a Starling chased by a Hawk flew into the open window of our apartment on the third floor of the Lafayette Hotel.

Round and round the walls of the room the birds circled—the wings of the Hawk so closely overlapping the Starling, that the two forms appeared to be but one. Then with a downward rush the Hawk pinned his intended victim, which was screaming like a child, to the floor.

There would have been small hope for the Starling had this hunt come to a finish in the open. But the sight of a human being running towards him startled the Hawk, who deserted his prey and dashed toward the open window, trying in vain to fly through the glass of the upper sash—while the Starling sought cover in a corner of the room.

For a few moments all was quiet, save for the sound of the beating of the Hawk's wings upon the window pane. Then the imprudent Starling ventured out into the light!

Immediately the Hawk ceased his attacks on the window, and the hot pursuit began again. Again I ran forward, again the frightened Hawk made a break for freedom, and this time discovering the window opening disappeared among the tree-tops.

I hoped that after the departure of his enemy, the little Starling would have tarried awhile in the house which had proved a refuge to him, but he did not know where he was safe, and fluttered towards the sunshine streaming brightly into the room.

For a few moments he rested panting on the window ledge, his curved yellow beak wide open, showing a scarlet line of tongue, his iridescent plumage gleaming in the sunlight and his alert black eye turned upon me, then he too answered the call of the wild and was gone. And I hope that his path through the air did not again cross that of the Sharp-shinned Hawk.—MABEL STUART DAVIES, *Portland, Me.*

#### Nesting of Chimney Swifts

Owing to the absence of suitable nesting chimneys, the Chimney Swifts of many of the wilder sections have to resort to other nesting-sites. The accompanying photograph

was taken in an abandoned cabin situated on the bank of the Magnetawan River, Parry Sound District, Ontario, Canada. When the nest was discovered, the five birds were still occupying it. One week later, at the time the picture was taken, July 24, 1924, the nestlings were found clinging to the walls to which the nest was attached.

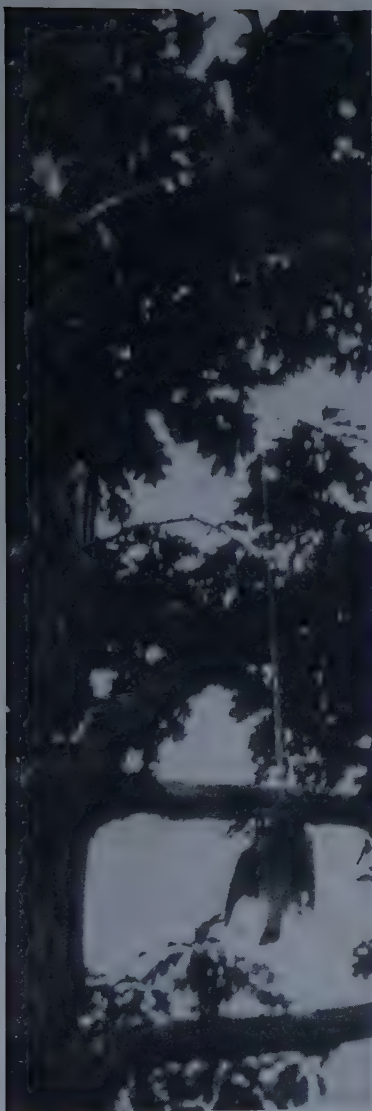
The old birds gained access to the interior of the building through a broken window and were remarkably tame, feeding the young within three feet of the observers, thus giving an excellent opportunity to observe the process of feeding. The parent, with greatly extended cheeks and throat, alighted upon the wall among the young. Immediately there was a great commotion. After a short hesitation a young bird would be fed by forcing some of the food from the mouth of the parent into that of the offspring. After a moment's feeding there was a pause and then the process was repeated, either to the same young or another. As many as three were served at a single visit.

The adults were so tame, that for the purpose of banding, they were simply lifted from the wall.—T. DONALD CARTER, *American Museum, New York City.*



YOUNG CHIMNEY SWIFTS AND THEIR NEST





### A Cedar Waxwing Tragedy

Photographed by Dr. Wilbert W. White, New York City, at Silver Bay, N. Y., June, 1924

The bird, while building, became entangled in a piece of string it was using in the construction of its nest. Tragedies of this kind are more often occasioned by strings than by plant fibers, and hence are indirectly due to man.

### What Killed Little Mother Song Sparrow?

Close to my farmhouse at Stamford, Conn., the birds nest trustingly because they know that friends have their own nest inside the house.

In the latter part of July a Song Sparrow built her nest about four feet from the ground, close to the trunk of a little white spruce tree, the branches of which reach to the ground, ten feet from the house. She laid three eggs and began sitting.

One morning, two or three days later, I noticed that the mother bird was gone. Some of the straws of the nest were disarranged and a few loose feathers remained among them. The eggs were untouched. Underneath the branches of the tree I found a wingtip and more feathers, indicating that the bird had been eaten at that point. What was it that killed her?

We have kept a list of birds and animals that have been caught in predatory acts or strongly suspected on the farm. This list includes almost all of the Hawks and Owls belonging to the locality, but the only one in this group likely to venture within ten feet of the house is the Screech Owl. The Screech Owl presumably would not have eaten the little bird under the branches of the tree. Red and gray foxes have not been known to venture within twenty-five yards of the farmhouse, and the same is true of raccoons and opossums. Red and gray squirrels are abundant and venture upon the porches, and the red squirrel in particular has destroyed nests frequently, but it is not likely that the red squirrel would have eaten the Song Sparrow with the exception of a few feathers and the wing-tip.

'Thorn Devil,' the domesticated house cat, is seldom seen about the place because we have disposed of practically all that stray to the vicinity. This is not due to prejudice against pussy, for we had some beauties in former years until we learned that they were setting their 'thorns' into almost every young bird hatched about the place. Furthermore it does not seem possible that a cat could have climbed the branches of the tree without frightening the bird from the nest.

Minks, skunks, and brown weasels come close to the house, but not one of these was likely to have stopped beneath the branches of a tree to have eaten its victim. Rats have been known to destroy the nests and eggs of our birds, but a rat would probably have dragged the bird into his hole and we have kept after these rodents so actively that there were cobwebs over the nearest old ratholes. Furthermore a rat would probably have returned on the following night to get the eggs which were left undisturbed. Black-snakes and milk snakes which we have 'caught in the act' would have swallowed the bird entirely.

Who can give a guess about the predatory fiend that killed the little Song Sparrow in her nest?—ROBERT T. MORRIS, *New York City*.

#### Apparent Increase of the Henslow's Sparrow in Eastern Dutchess County, N. Y.

On June 7, 1924, at Amenia, Dutchess County, N. Y., I spied a little Sparrow (no

larger than a Chipping Sparrow), perched on a stalk of grass in a dry open field. After watching the bird for twenty minutes, he began to give a note something like *flee-sic*, which he repeated for about ten minutes. After hearing this, as well as observing the black lines down his crown, inset with olive, his olive cheek markings, reddish rump, I concluded it was a Henslow's Sparrow. For several weeks I spent most of my time in search of his nest, but I never found it. Meanwhile in several distant fields I discovered other Henslow's Sparrows.

The status of this bird in Dutchess County is that of a rather rare summer resident, but according to my own observations in the town of Amenia, I should say that it appeared to be a rather uncommon summer resident.

Mr. Maunsell S. Crosby, of Rhinebeck, Dutchess County, tells me that during his own observations throughout the county he notes that the Henslow's Sparrow is commoner than ever before.—EDWARD D. W. SPINGARN, "*Troutbeck*," *Amenia, N. Y.*



RUFFED GROUSE ON NEST  
Photographed by S. S. Stansell, Manly, Alberta



## THE SEASON

Edited by J. T. NICHOLS

### XLV. June 15 to August 15, 1924

BOSTON REGION.—Delayed by a cool rainy spring, the summer season has been retarded by continued cool weather, and a prolonged drought relieved only by thunder showers. The common St. John's-Wort, a good gauge of the season on July 1, was ten days late in blossoming, and the May flies in northern New England were reported two weeks late in making their appearance, proving a disturbing factor to the trout fishermen. The two earliest goldenrods (*Solidago canadensis* and *juncea*), on the other hand, are now, mid-August, in full bloom, a nearly normal condition.

Birds seemed scarce this year, especially the Chimney Swifts. It will doubtless be several seasons before this species regains its former abundance after the decimation it suffered during the spring rains. A similar period of prolonged rain occurred in 1903 and resulted in the total, and thus far permanent, destruction from this region of the Purple Martin and a serious diminution in the number of Swifts and Swallows, a loss which was not made good for half a dozen years.

At this season of the year we see little to show us that the land birds are migrating, but it is evident from the notes which we hear at night as they fly overhead that they are already moving south. The shore birds, however, may be watched during August in very active migration. The earliest birds appeared this year soon after July 1 (two Least Sandpipers, July 5, Hampton, N. H.), but in comparison with last season the flight has been meager and the various species of Sandpipers and Plovers have appeared on noticeably later dates than a year ago.

Observers who spend the summer months at the shore are soon impressed by the activity, and often by the noisiness, of the shore birds during the night. At the present time the migration of these birds is at full tide and at all hours of the day and night the notes of the smaller Sandpipers are frequently heard, and on moonlight nights

Semipalmated Plovers can be seen running along the beaches, and less often, because of the comparative rarity of the bird, the call of the Killdeer from the air, the beach or grassy field indicates the nocturnal habit of this bird.

A colony of two or three hundred Common Terns is breeding successfully, as they did last year, on the level sandy region back of the beach at Seabrook, N. H. At the present some of the young are on the wing, fledglings are floundering about on the sand, while many nests still contain unhatched eggs.—WINSOR M. TYLER, *Lexington, Mass.*

NEW YORK REGION.—One of the most noteworthy occurrences locally during this period was the finding of a nest with young of the Prothonotary Warbler near the Passaic River between West Caldwell and Pine Brook, N. J., reported by W. D. Quattlebaum and visited by several local ornithologists (July 5, etc.). This is the first local breeding record and the most northerly for the Atlantic coast.

We have been privileged to scan the notes of J. and R. Kuerzi, who as usual have been actively afield. Among many interesting items they report a Cardinal at Scarsdale (Westchester) June 24. At Hunts Point (Bronx section) a Solitary Sandpiper on July 17 and a Laughing Gull on August 2 are good arrival dates. We quote the following observation from Englewood, N. J., August 8: "A large flock of Starlings swept low over a field, pursued hotly by a Sparrow Hawk. The Hawk followed closely and by putting on a 'spurt' of speed, managed to hit the center of the flock and succeeded in grabbing one." They have also visited a Rail marsh in the outskirts of Brooklyn, earlier reported to us by B. Nathan, where American and Least Bittern, Virginia and Sora Rail, Florida Gallinule and American Coot have been observed, and King Rail is also reported.

H. F. Stone reports a Lesser Yellow-legs, at Lawrence, L. I., June 17. From the rarity of the species on Long Island in spring and the fact that there are southbound dates for it in other years as early as June 24 and June 27, we are inclined to consider this individual a casual early southbound migrant.

In August a number of Cory's Shearwaters were observed along the south shore of Long Island (August 3, Mastic, J. T. N., an early date), coming sufficiently close inshore to be readily identified from the beach.

The interesting hypothesis advanced in *The Auk* (January, 1924), by A. A. Allen, that younger birds are constantly arriving on particular nesting-grounds during the summer, which take the place of breeding individuals destroyed, is to a certain extent confirmed by local bird-banding and other data. Long after the close of their regular spring migration this year the writer observed three male birds in full song for one day only in localities where the respective species were known not to breed. The first, an Orchard Oriole on June 28 at Mastic, was a second-year bird with plumage of the female, except for the black throat-patch; the second, a Scarlet Tanager, July 8, at Garden City, was one of the rare saffron-colored individuals; the third was a Chestnut-sided Warbler, July 13, at Mastic. At Upper Montclair, N. J., Howland finds that although for the most part summer resident Song Sparrows arrive in late March and April, a few Song Sparrows which establish themselves as summer residents appear later. Three individuals known to have left the nest in 1923 returned to the traps and established themselves as 'repeaters' respectively on April 5, May 23, and June 9, 1924. None of the summer resident birds shown by his banding records (of five years) to be more than a year old (of which ten instances are to hand) have returned and established themselves later than April 21.

An identical female House Sparrow raised three successive broods over a window ledge (Garden City, L. I.). This bird was caught about 35 yards from this nest location and banded, the preceding December or January. Although the number on the band has not been checked, circumstances are such that

the writer is confident of the bird's identity. Her nest held young May 11, June 15, and July 29.—J. T. NICHOLS, *New York, N. Y.*

PHILADELPHIA REGION.—The exceedingly wet and cold spring changed abruptly to warm summer with few extremely hot days. Normal weather conditions have prevailed throughout this period.

The Nighthawk seems to have been a very uncommon resident, locally at least, this summer, its loud piercing cry having been heard on very few occasions. Usually this bird can be heard nightly as it beats about over the housetops. However, since these birds have started to migrate, quite a few have been observed—six at Atsion, N. J., August 9, several at Pleasantville, N. J., August 11.

Interesting records for July include Loon, Scaup (species?), and Osprey at Gloucester, N. J., July 10, while Mr. Delos Culver reports a Canvasback Duck on the Schuylkill River, Philadelphia, Pa., July 14. It is possible, he states, that this bird may have been an escape from the Zoo.

It may be of interest to state that the young Barn Owls mentioned in the last report left their home about two months after they were born, and of the original brood of seven, six were raised, a rather unusual number to reach maturity it would seem.

The Black Skimmers and Common Terns of the New Jersey coast have experienced a successful breeding season; many young Terns and 15 young Skimmers were found in one colony on July 20. A very interesting record for this colony was the discovery of a young Roseate Tern about ready to fly, by Mr. Gillespie. Once more this beautiful Tern is established on the New Jersey coast after many years absence.

While the shore-bird flight is good, it does not seem to be as heavy as the big flight of a year ago. As usual the Semipalmated Sandpiper is the most abundant, with the Semipalmated Plover and the Sanderling vying for second place. A Stilt Sandpiper, Cape May, N. J., August 3, is the only unusual wader so far noted. A single Upland Plover was heard calling as he passed overhead on the night of July 28, Camden, N. J.



and two were found feeding on a mud flat with other waders at Cape May, N. J., August 10. Five Little Blue Herons, one of which was an adult, were observed on this occasion also. Flocking Kingbirds, Martins, and Tree Swallows were the most numerous land birds noted.—JULIAN K. POTTER, *Camden, N. J.*

WASHINGTON REGION.—The cool weather of the spring continued throughout most of June and early July. The chief ornithological event of these months in the vicinity of Washington was the lingering of some of the spring migrants, principally Warblers, which should have departed by June 1.

Among these might be mentioned the Black-throated Green Warbler which was noted on June 1, whereas its ordinary date of departure is May 22, and its very latest record June 10, 1917. The Chestnut-sided Warbler, observed also on June 1, ordinarily departs about May 22, and the present year's record is close to the previously latest record of June 2, 1917. The Black-poll Warbler remained until June 7, although it usually passes north by June 1, and never has been seen here later than June 16 (1907). The Northern Water-Thrush likewise approximated its previously latest record of June 2, 1907, by remaining until June 1, whereas its departure ordinarily takes place about May 25. The Bay-breasted Warbler lingered until June 5, which equals its previously latest record of June 5, 1917, and was a week and a half beyond its ordinary time of leaving. The Gray-cheeked Thrush stayed until June 1, although it commonly departs about May 26, and never has been seen here later than June 4 (1917). Another interesting record is that of the Black Tern, which was seen by Miss K. H. Stuart on the Potomac River near Dyke, Va., just below Washington on May 30, which is considerably later than its previously latest spring date of May 17, 1917.

The moderate temperature has likewise induced greater activity among birds than is sometimes the case at this time of the year. At least, they have been active for more hours each day than is usual.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

PENSACOLA (FLORIDA) REGION.—The Florida bird-student need never concern himself about possible temperature variations during the summer season. The total range noted by the local Weather Bureau station over a period of more than thirty years extends only from 62° to 101° Fahrenheit, and neither of these extremes should noticeably affect bird-life. The only weather features that he need watch are abnormal rainfall and the possible occurrence of tropical hurricanes. During this season rainfall has been about normal—a slight excess during the first half of the period and an almost equal deficiency during the latter half, with no prolonged rainy spells. No destructive winds have been experienced.

At this time of year, nesting naturally claims the greater part of the observer's attention, and several items of interest have been noted. Practically all of the species that raise only a single brood concluded their family cares before the beginning of the period under consideration, but many of those that nest twice or oftener in a season and a few unfortunates among the single-nesters that had lost their first nests and had to repeat, carried on well into August. Notable among the latter was an Orchard Oriole seen feeding young out of the nest on August 3. Other late records are: Loggerhead Shrike seen with brood just out of the nest, June 29; Mourning Dove, nest with fresh eggs, June 29; Brown Thrasher, eggs hatching, June 29; Kingbird feeding young just out of nest, July 20; Mockingbird, young leaving nest, August 13; Southern Blue Jay, feeding full-grown young out of nest, August 14; Fish Hawk, second brood not yet on the wing, August 15. The bad luck of the Brown Thrasher, noted in the report of April 15–June 15, seems to have persisted, for out of the total number of nests (about ten) found this season, only one brood survived long enough to try their wings.

Mrs. A. G. DeLoach sends in some nesting notes of interest from her farm near Mulat, Fla., a small town a few miles east of Pensacola: "The Carolina Wren began sitting on her last nest, July 31. This will be her second brood in this nest for 1924. She has nested five times this year, but two nests

were destroyed. She and her mate were banded on January 31, 1923, and both have been caught many times since. Out of seventeen Thrasher nests found this season, we have only a small number of birds. Not much of this destruction has been done by snakes and Jays; Crows have destroyed more nests this year than ever before. On June 19, a Meadowlark was found sitting. This is quite late for this species."

The Crow noted by Mrs. DeLoach is almost certainly the Fish Crow, by far the most abundant form in this region.

The wonderful chorus of May diminished rapidly early in June, and by the end of the month only a few species were singing even in the early morning. An Orchard Oriole was heard in full song on July 18 (very late). The Mockingbird, the Alabama Towhee, and the Southern Yellowthroat sang occasionally up to the middle of July, while a few Cardinals persisted until early August. A single Carolina Wren, possibly with a mate still sitting on a nest in a city garden, seems not to know that summer is more than half over, and up to the date of mailing this report (August 15) is still in full song.

It may seem strange to northern observers that the fall migration reaches this far south so early, but several species regularly make their appearance here during this period. The arrivals noted so far are: Black Tern, July 12; Solitary Sandpiper, July 20 (very early); Spotted Sandpiper, July 24; Barn Swallow, August 10 (very early); and Oven-bird, August 10. This last species is very rare—usually passing over this region in migration—and its occurrence at such an early date is without precedent. On July 19, two Sanderlings (probably resident non-breeders) were seen on the Gulf beach. The first Yellow-crowned Night Herons were seen on July 10, and a large flock in migration passed over the city on the night of July 25. The local status of this species is peculiar. A few adults sometimes stop in May on the way to their breeding-grounds in the great river swamps twenty miles or more inland. Early in July, young birds appear in the salt marshes in ever-increasing numbers, while the adults are seen but rarely.

While most of our summer residents stay until September, the Orchard Oriole leaves much earlier. It becomes rare in the first week in July, and sometimes disappears altogether by the middle of the month. This year the last was seen on August 7. Purple Martin, Parula Warbler, and Yellow-throated Warbler are inconspicuous, if not actually rare, after the end of July.

A queer incident, which has no bearing upon bird movements in general, was noted on the Gulf beach in July. A Loggerhead Shrike, a non-migratory species, was seen to fly southward from the sand dunes out over the line of surf. It seemed at first to be making for a post out in the water, but instead it passed on, flying about ten feet above the waves. As far as the eye could follow, it continued on its course due south. There was no ship in sight to which it could have been going, and the nearest land in that direction is the coast of Yucatan, 500 miles away.—FRANCIS M. WESTON, JR., U. S. Naval Air Station, Pensacola, Fla.

PITTSBURGH REGION.—This summer has been considered one of the coldest in recent years by many residents of the region. While this has affected the migration of birds to an extent, and certainly delayed nesting activities in many instances, I cannot see that it has particularly influenced the number of individuals of the usual summer residents. The lateness of certain migrants has almost led us to expect certain more northerly species to remain with us to nest. This was particularly the case with the Bay-breasted Warblers in Warren County where Messrs. Simpson and Grantquist watched the birds closely for signs of nesting. No word has come from these observers as to their local Warbler population since early June, however.

Nesting Alder Flycatchers were far commoner at Pymatuning Swamp, Crawford County, and Sandy Lake, Mercer County, than I have ever known them. This is gratifying in view of the supposed rarity of this species. Likewise, Orchard Orioles, at least in the vicinity of Bethany, W. Va., were unusually common. Cliff Swallows, according to observers in the State College region, have been commoner than for many



years, and if a certain Swallow nest found by Mr. T. F. Walter along Raccoon Creek, Beaver County, was indeed a Cliff Swallow's, as his description leads me to believe it was, it would seem to indicate a possible invasion of this species as a summer resident in localities where it has been almost unknown. Prairie Horned Larks, Grasshopper and Vesper Sparrows, and (locally) Redstarts seem to have been somewhat rarer than formerly, and Wilson's Snipes were not found nesting at Pymatuning Swamp (early June) as in previous years, possibly due to the cutting of cat-tails.

Mr. Bayard Christy's record of a pair of Least Bitterns at Harmarville, July 9, should be of great interest to local observers because it almost certainly indicates the nesting of that species near Pittsburgh. Mr. Christy has also had the good fortune to observe an immature Black-crowned Night Heron at Sewickley, July 15 and thereabouts, a number of times. At Bethany, W. Va., on July 9, I saw an immature (or at least a bird in white plumage) Little Blue Heron, my first record for that species in the region. The bird was very closely observed a number of times, the pale green feet being always evident as the bird took wing. Farmers thereabouts had seen the bird two weeks previously almost every day. Mr. Christy, in visiting the Raccoon Creek region on July 20, heard reports of a 'white crane' which may have referred also to this species, but the bird was not seen by him on that date.

From Miss Laura Allen, at Erie, comes the report that Slate-colored Juncos have nested at Wattsburg in some numbers. She has found Scarlet Tanagers, Yellow-throated Vireos, Rose-breasted Grosbeaks, Killdeer, and Black-throated Green Warblers somewhat commoner than usual. On the other hand, she has found very few Grasshopper Sparrows, indicating that the scarcity of this species has been rather widespread this season. Observers at Erie have abundant opportunity to record numerous species which occur almost nowhere else in the state. We hope that more reports may come in from that county.

From members of the Game Commission

in widely separated localities I understand that both Bob-whites and Ruffed Grouse are common; Wild Turkeys, however, seem to have had a rather difficult spring season, and are locally rare.

Migrating shore-birds have not yet appeared, although among Kingbirds, Orioles, Grackles, and other species there are already indications of pre-migratory flocking.  
GEORGE MIKSCH SUTTON, *Pittsburgh, Pa.*

OVERLIN (OHIO) REGION.—The weather has been very temperamental this summer, with alternate hot and cold waves and considerable rain. The temperature range for July and August was from 45° to 98° F. The 100° mark was not reached.

No unusual records have been reported for the summer. The Migrant Shrike, Wood Pewee, Crested Flycatcher, and the Yellow-billed Cuckoo were unusually common. The writer has never seen more Cedar Waxwings than were observed in July and August. The Upland Plover was conspicuous in August also. Thirteen of them were counted on less than a quarter of an acre of pasture land near Columbus. Bob-whites are now in great abundance. One was observed to alight on a lawn inside the city limits of Marion, Ohio.

The nesting season in general has been successful. The Northern Yellow-throat, Redstart, Oven-bird, Blue-winged, Yellow, and Cerulean Warblers nested near Oberlin. The tornado and storm of June 28 upset and flooded a large number of bird homes in northern Ohio. A week after the storm, Lorain was apparently deserted of birds, but probably they have come back since then. Very few bird families there survived the disaster. A Killdeer's nest was found on the crushed stone roadbed between the rails of a sidetrack of a railroad about a mile outside of Oberlin. Both eggs successfully hatched.

In a recent number of *The Auk*, Spotted Sandpipers were reported as perching on telephone wires. In two instances the writer has seen them alight on barbed-wire fence wires near Oberlin. Red-headed Woodpeckers have lately exhibited a tendency to hang from telephone wires after the manner of a Chickadee from a twig. On August 15, a Green Heron was seen perched on a tele-

phone wire inside the city limits of Fort Wayne, Ind. An examination of the foot of a living Bittern led to the conclusion that such a feat was practically impossible, but seeing is believing. It is the first time the writer has ever observed a bird structurally below the *Paludicolæ* perching on a telephone wire.

An unusual number of part-albinos were found this summer. An Oberlin Robin had one wing entirely white; an English Sparrow was seen with his back and tail white, and another was found with all but one tail-feather white. White markings were found on several other species of birds.

The birds started flocking early this fall. A group of about 3,000 Bank Swallows was seen near Port Clinton, Ohio, and about the same number of Purple Martins spent the night in one city block at Springfield, Ohio. Grackles were very abundant and quite a nuisance. Men have been seen clapping their hands in front of their homes to drive them away.

The first fall migrants were seen August 3, at Cedar Point. They were the Sanderlings, Semipalmated Sandpipers and Lesser Yellow-legs. Two migrating Nighthawks were seen flying near Lake St. Marys, August 15.  
—MARTIN L. GRANT, *Oberlin, Ohio.*

CHICAGO REGION.—The past two months have been exceptionally cool, and unless the latter part of this month is much warmer, this summer will be one of the coolest that Chicago has ever known. The cool weather has been attended by a good deal of rain and several severe storms. Water in near-by lakes is considerably higher than it normally is at this time of year.

Many of our observers are away from this region during the period for which this is written, and those who are here have reported very little. The birds seem to have had a successful season for nesting. In the writer's opinion young Cowbirds are less numerous than usual. Robins are flocking and the young birds are to be found in large numbers in fields and on lawns. Here and there one runs across an individual which seems to be moulting more thoroughly than comfortably. Purple Martins are also flocking, preparatory to their southward journey.

The first southbound shore birds were seen at Lincoln Park on July 16, when a dozen Least and three Semipalmated Sandpipers were noted. The same species were again seen on July 25. At Grant Park, on August 1, two Semipalmated Plovers, a Pectoral and two Baird's Sandpipers were seen. The Spotted Sandpipers at Lincoln Park had young almost ready to fly on July 16, and by July 25 the young birds were flying about seemingly independent of their parents. Young Killdeer were almost fully grown on July 16, and no Killdeer were found in the park this morning (August 18).

The Bonaparte's Gull flock has increased from a dozen on July 16 to about 200 on August 18. A few Common Terns and Black Terns have been with this flock since mid-July, and today were seen in increased numbers. With the flock also were a few Forster's Terns, two Caspian Terns, and several Ring-billed Gulls.

Aside from the above-noted tendency to flock, there has been little indication of a southward migration of land birds. True, a few Kingbirds and Yellow Warblers have disappeared from the neighborhood of their nests, but we have not yet seen the Redstarts and Water-Thrushes which usually precede other species in seeking warmer climes.

The dearth of material at hand gives this writer the opportunity to mention some interesting bird traits which some of BIRD-LORE's readers may not have observed. One seldom thinks of the Spotted Sandpiper as perching in trees or bushes, yet in their Lincoln Park nesting-area these little fellows frequently take such a point of vantage. On several occasions I have seen one alight on one of the lower branches of a shrub or young tree. Usually the bird chooses one which bends beneath his weight. Swaying in the breeze, he still contrives to 'teeter' and flirt his tail. Sometimes the birds seem to find it necessary to half open their wings in order to balance.

Two male Martins gave me a surprise on July 16. I was watching a number of Killdeer and Least Sandpipers which were running about on a sandbar about 100 feet offshore at Lincoln Park, when I noticed the Martins. They alighted on the bar and



remained there for at least twenty minutes, walking about with a peculiar mincing gait. Their long wings, which make them so graceful in the air, had just the opposite effect on their ambulatory endeavors. As they walked about they frequently picked up insects or other bits of food from the water's edge, much after the manner of their shore-bird companions. Many other Martins were flying near, but neither joined these nor enticed them away from their occupation.—GEORGE PORTER LEWIS, *Chicago Ornithological Society*.

MINNESOTA REGION.—The summer just drawing to a close has rather belied its name, for, although there have been brief periods of warm and seasonable weather, on the whole it has been a cold, stormy, and disagreeable two months. The highest temperatures thus far were in July, 87° on July 8 and 11, and 90° on July 22. The nights have rarely been warm, and grate-fires mornings and evenings, and even light furnace fires have frequently been necessary for perfect comfort. The northern part of the state has suffered especially, and it has been a disappointing season for the thousands of visiting tourists and Minnesotans who annually seek that evergreen wilderness. Numerous severe wind-storms, reaching in some instances the proportions of tornados, and sudden, almost torrential, rainfalls have occurred in various parts of the state. After the middle of July the precipitation steadily increased, and since August 1 has greatly exceeded the normal, raising the lakes and streams to a point approaching the old-time level. It is to be hoped this restoration may not be only temporary. Mrs. J. A. Thabes, reporting from Gull Lake, Mille Lacs County, a large body of water, says: "Lake very low until middle of July. From that time to August 7, the water rose 12 to 15 inches." Mrs. Geo. E. Platt, writing from Pelican Lake, in Crow Wing County, states: "The season here has been most unfortunate for our birds. One tornado, two dozen storms, and six hail-storms have taken heavy toll of the young birds. The weather has been so cool that my bird-bath has not been nearly so well patronized as usual." Mr. Commons,

of Crystal Bay, Hennepin County, also states that the destruction of birds' nests has been very great. Similar reports come from other parts of the state. It has evidently been, from early spring, a disastrous year for the birds.

The retardation of vegetation, noted in the last chapter, has continued throughout the summer. Wild flowers, shrubs, and trees have come into bloom on an average two weeks later than usual. Linden trees should bloom at Minneapolis about July 4, but this year it was nearer July 21. Wild roses were not generally in bloom until about July 18; Jersey tea, butterfly weed, anise and hyssop, July 21; bergamot, Black-eyed Susan, spreading dogbane, and Turk's-cap lily, July 25. Small grains have done well and there is an abundant harvest. Corn, however, lagged, and on July 4 many fields were only a few inches instead of 'knee' high. But in spite of the cool weather there is for the birds an abundant crop of small wild fruits, such as red-berried elder, choke-cherry, service-berry, snowberry, mountain ash, etc. The Russian mulberry trees, which were planted here in considerable numbers some years ago, fruited abundantly this year and were full of Robins, Catbirds, and Rose-breasted Grosbeaks until they were stripped bare.

The following desultory bird-notes may be of interest: June 26, Minneapolis, a Yellow-billed Cuckoo building its nest, which it nearly completed between 10 A.M. and dark (Miss Aftreith). July 1, Minneapolis, Mrs. Davidson reported seeing what was apparently a family of six Red Crossbills in Glenwood Park, a very exceptional occurrence, as this bird is not known to nest here south of the evergreen forests. July 10, Minneapolis, the eggs in a Cedar Waxwing's nest hatched and the young left the nest on July 22 (Miss Aftreith). A nest of this species was built this year at Red Wing the middle of June, an unusually early date. July 15, Minneapolis, Bank Swallows still feeding young at entrance to holes. July 23, Marine, young Scarlet Tanagers left nest (Miss Young); Minneapolis, Pectoral and Solitary Sandpipers and Lesser Yellowlegs back from the north (Mrs. Davidson). July 25, Marine.

Dove carrying nesting material. July 26, Minneapolis, Vesper Sparrow's nest with three young just hatched.

The Cliff Swallow, which has largely disappeared in late years from this region as a breeding bird was found nesting in June in considerable numbers in Aitkin and Cass Counties by Mr. Bernard Bailey.

Rather more than the usual number of Orchard Orioles for recent years have been reported this season. Formerly this bird was a fairly common summer resident in all southern Minnesota and occurred sparingly as far north in the Red River Valley as the Canadian boundary, but of late years it has, for some unknown reason, become an uncommon bird except in the west-central and southwestern parts of the state where it is still pretty well represented (Grant County, Miss Densmore; and Pipestone, Mr. Peterson).

In the last chapter was given a résumé of the observations of Mr. Alfred Peterson, of Pipestone, on the northward migration of the shore birds in Pipestone and Lincoln Counties last spring. A recent letter hails their return, and the following dates of the reappearance from the North of a few species are given: Solitary Sandpiper, July 11. Common after July 20. Last spring record, May 11. Lesser Yellow-legs, July 31. Common, August 10. Last spring record, June 23. Stilt Sandpiper, July 31. Many, August 10. Last spring record, June 5. Pectoral Sandpiper, July 31. Common thereafter. Last spring record, June 1. Least and Semipalmated Sandpipers, July 31. Abundant after August 10. Last spring record, June 9 (many). Northern Phalarope, August 10. Three. Last spring record, June 5 (thirty). Long-billed Dowitcher, August 10. One. Last spring record, June 5. Semipalmated Plover, August 10. Six. Last spring record, June 1.

The early return of the far-northern breeding shore birds is always a surprise. The brief interval between their final disappearance in the northward movement and their reappearance shortly after midsummer seems all too short for them to reach their distant nesting-grounds, rear families, and get back again. If the first spring migrants pass rapidly on and are the first to come back, it would seem less of a mystery. Perhaps this

may be settled by extensive banding operations. The banding of some of the northern-nesting land birds, such as the Tree Sparrow, Junco, and Harris Sparrow, seems to disprove this explanation so far as they are concerned, as it has been shown that they may linger in the spring about certain localities for two or three weeks before moving on.

From June 18 to July 7, the writer, accompanied by Mr. William Kilgore and Mr. N. L. Huff, of the University Botanical Department, made a trip by automobile to the western part of the state to investigate summer bird conditions on the prairies as compared with forty-five years ago, when two weeks were spent collecting in Grant and Traverse Counties (see Bull. Nuttall Ornith. Club, V, 11-20, 1880). One of the chief objects of the expedition was to determine the present status of certain species which belong normally to the Central Plains but which overlap our western border in varying degrees.

Nearly 1,000 miles were covered in our zigzag journeyings through the counties of Kandiyohi, Swift, Stevens, Grant, Otter Tail, Traverse, Big Stone, Lac qui Parle, Yellow Medicine, and Chippewa, all of which were once largely unbroken prairie, but which are now thickly dotted with large tree-claims which greatly alter the landscape. On the east, Traverse and Big Stone Counties border the large lakes of the same names. The whole region is now a vast, rolling cultivated plain, supporting many villages and towns, traversed by railroads and fine highways, and the bits of virgin prairie remaining are so few and far between that it requires a special hunt to find them. Shallow lakes and ponds have been drained or have dried up, and the former swamps are mostly hay meadows or cultivated fields. This is perhaps as it should be from the viewpoint of the agriculturist and the business man, but from that of the nature-lover, with a memory of the past and a bit of sentiment in his make-up, it is a sad and disappointing spectacle. Needless to say, the old bird conditions are greatly and irretrievably changed. Some species, as the Long-billed Curlew, Cranes, and Swans left long ago. Others have gone during the last half-century, and still others are now



fast disappearing. The Chestnut-collared Longspur and the Lark Bunting, once common and characteristic birds of this region, have gone with the wild prairie: we found not a trace of either. McCown's Longspur, Sprague's Pipit, and Baird's Sparrow, less common summer residents in early days, have also disappeared.

A few Marbled Godwits still remain here and there to remind one of the thousands and thousands that noisily guarded their nesting-places on these prairies in 1879. Grant County, where rather more virgin prairie remains than elsewhere, seems to be the present stronghold. Two dozen were seen feeding on a drying lake-bed on June 24 near Herman, representing probably the breeding birds from many miles around. Isolated pairs were also seen in Kandiyohi and Big Stone Counties. The eggs were just hatching at the time of our visit. This valuable and handsome bird is fast approaching extinction in Minnesota, for the breaking-plow is annually making inroads into its few remaining abiding places.

This whole vast region was once peculiarly the home of the Upland Plover, its mellow notes being constantly in the ears of the traveler. It is still there, but a careful tally recorded only some forty-odd birds seen in the 1,000 miles traversed—surely a pitiful remnant! But this bird shows a certain degree of adaptability and, if not shot as game, may survive in pastures and on bare prairie knolls and bluffs.

The vast number of Ducks that formerly nested in western Minnesota is now reduced to a number small by comparison, and these are largely confined to limited areas where suitable conditions remain. We saw more Ducks in Grant County than elsewhere, the few remaining lakes, ponds, and sloughs being fairly well populated, the species being in about the following order of abundance: Blue-winged Teal, Mallard, Pintail, Gadwall, Shoveler, and Ruddy Duck. Redheads were seen in only a single place—a shallow lake full of bulrushes at Clinton, Big Stone County, where, almost within the confines of the town, was a greater aggregation of water birds than at any other locality visited. Here at least a hundred jaunty Ruddy Ducks were

disporting themselves in the open spaces—curious objects with their heads thrown back, chests puffed out and tails stuck up. This little Duck had seemed to be disappearing from some of its old haunts in recent years, but this spring it appeared in fair numbers in the migration in Lincoln County (Peterson), and we saw them evidently nesting in several places. The presence of so many Gadwalls was also interesting as they, too, had been falling off from their former great abundance.

As a pleasing contrast to the complete or partial disappearance of less adaptable birds, we found two distinctly western species that have greatly increased in numbers in the last few decades. The Western Kingbird or Arkansas Flycatcher is now an abundant bird throughout this region, where in 1879 only two or three pairs were found, and only at Brown's Valley, near the Dakota line. At present it is a common bird at least a third of the way across the state, and straggling pairs may be encountered much farther east. It is also common in the southwestern part of the state and northward in the Red River Valley—an instance of the rather rapid extension of the range of a bird once rare in the state.

Another western species that is creeping gradually eastward over our state is the little Burrowing Owl, apparently finding the numerous badger dens of the prairies an acceptable substitute for the prairie dog burrows of their native land. Scattered pairs have been found in this part of the state for many years, but now they are common and generally distributed over all the area we visited, at least as far east as Herman in the north and Montevideo in the south. They seemed partial to pastures often in close proximity to farms, due no doubt to the fact that there they can find more readily the food they prefer—young gophers, mice, and especially dung beetles, which, judging from the many pellets examined, form a very considerable part of the diet of both old and young. One nest examined near Herman on June 23 contained ten partially incubated eggs, but most of them had half-grown young at this time and the mounds at the entrances to the burrows were occupied by families of

up-standing, agile, fluffy youngsters that were being waited on assiduously by both parents.

Brief mention may be made of a few other observations resulting from this trip. A considerable number of Ring-billed Gulls were seen at Lake Traverse on July 1. They were in various stages of immature plumage, though several seemed to be in full nuptial dress. There was no evidence that they were nesting and thus far this Gull is not known to breed anywhere in the state and has rarely been observed in the summer months. Mr. Peterson found them at Lake Benton as late as June 23 this year. Lesser Yellow-legs were found in little parties in several places from July 1 on, either exceptionally early return migrants or non-breeding birds that failed to go north.

Eared Grebes were seen in considerable numbers in both Grant and Big Stone Counties. We saw no young and the old birds (males?) were mostly swimming together in loosely assembled flocks. The Short-eared Owl is more in evidence on the lowlands of this region than in the eastern part of the state. The young were half-grown the middle of June. Prairie Chickens were seen daily and were generally distributed in numbers greater than expected. A nest examined June 21 contained twelve eggs. Four of the eggs were cracked by the bird in its precipitate rush from the nest on our too-close approach. A day or two later we found that the bird had removed all of the broken eggs so far away that they could not be found. A farmer stated that he had destroyed four nests of this bird while burning off portions of his farm this spring and believed that many nests met destruction in this way.—THOMAS S. ROBERTS, *Director Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—The season now passing has been extraordinarily favorable to the nesting of Robins and House Finches in and about Denver and also at Grand Junction. Miss Copeland writes me that she has never before seen so many birds in her city and its environs, many both in species and in numbers. While the numbers of certain

species about Denver have been very large, yet other species have been not so common as in other summers. Besides Robins and House Finches there have been many Mourning Doves in my region. As I write there are two sets of eggs being incubated under Doves within 100 feet of my home, both sets presumably second broods. Denver has not had many Black-headed Grosbeaks this season, yet in the orchards about Grand Junction they have been very common.

I have seen fewer House Wrens in and near Denver during the past two months, though well 'out in the country' they have been common along the streams. It is pleasant to record that there have been a good many Lazuli Buntings breeding in this neighborhood, some nesting in a nursery close to my house; this species has been a welcome summer resident in Miss Copeland's neighborhood; she reports seeing young ones out of the nest not far from her home on July 3, and also writes that she saw a pair of Rock Wrens and their young on June 15 on the Gunnison River, a record I cannot match for Denver, though I have seen the species several times in July not far from Denver. One of my great pleasures this season was the finding of a few Mountain Plovers breeding east of the city; on July 4, I succeeded in catching two of the young, seemingly only a few days old, not able to fly, but able to run, as I can testify, for it cost me a great deal of foot work before I succeeded in banding them. Miss Copeland has had Cuckoos in her vicinity, more than usual in fact, and the same is true of Denver's neighborhood. It would seem from these observations as though there had been more Cuckoos about Grand Junction and about Denver than for a long time past. There have been fewer Vireos about Denver as the summer passes, but at Grand Junction they have been more common than at any time in Miss Copeland's experience.

As I close this report most of our local Robins seem to have left for the South, especially the young, and so also the Black-headed Grosbeaks. It is about time for Bullock's Oriole and the House Wren to leave the city, and the Yellow Warbler will be taking its departure soon for the South,



though all three of these species are still with us as I write. Yet signs of the autumn migration are indubitable, for an Orange-crowned Warbler passed through my yard on August 4.

The summer has been a warm one, with almost no rain, with a long succession of cloudless days, and gives me the impression of having exhibited fewer species of birds, but many individuals of a few species.—W. H. BERGTOLD, *Denver, Colo.*

PORTLAND (OREGON) REGION.—The summer season this year has been the most interesting from an ornithological point that I have yet seen in Oregon. The long-continued dry weather, the dry spring, and the lack of hot weather in western Oregon has made it a very favorable season for birds, and among many species a larger proportion of young birds have been successfully reared than is usually the case. A number of interesting records have also been obtained in this district during this season.

On June 8, a visit to the Columbia River bottoms revealed the presence of a considerable number of California Cuckoos. Twelve or fifteen birds were present in an area where but one bird had been previously noted in five years. They have continued to be found there in numbers all summer. Why these birds should suddenly move into this area is not known to me, but some condition evidently caused a considerable number of them to move from their usual breeding-grounds.

Early in June, young Audubon's Warblers appeared in numbers at the bird-fountain in my yard and are still present as this is written on August 13.

On June 12, at Redmond, Oregon, I collected a female Northern Phalarope in full breeding plumage. This is an unusual record for this district, as few Northern Phalaropes have been recorded in spring migration in this part of Oregon and none so late as this date. Mountain Bluebirds, Mountain Chickadees, and Black-throated Gray Warblers were the abundant birds breeding in the juniper district around Redmond. I traveled from Redmond to the Klamath country and noted an enormous increase in Avocets and

Black-necked Stilts. These birds were breeding in areas where I have never observed them before. This may have been due somewhat to the restriction of breeding-areas as a result of low water, but I saw more Black-necked Stilts than I have ever observed in Klamath County before. Both these species had young on June 17, the time of my visit. Wilson's Phalaropes were present in numbers, both as breeding birds and in flocks of from 50 to 100. I collected one bird out of one of these flocks and found it to be a non-breeding bird, and assume that these flocks were all non-breeding birds. A considerable number of Ducks of the various species were present in the various sloughs, with young, more Mallards being noted than any other kinds.

I returned to Portland on June 25 and found young birds of many species out of the nest and visiting my drinking-fountain. California Purple Finches, Pine Siskins, Western Robins, Western Bluebirds, Western Chipping Sparrows, Intermediate Juncos, Nuttall's Sparrows, and Brook's Savannah Sparrows were among the young birds noted the first day of my return home. This drinking-fountain has been the only available water for a considerable distance around, and during July and August such species as Killdeer, Desert Sparrow Hawks, Western Tanagers, and Black-headed Grosbeaks have visited the fountain regularly, although none of these species had appeared there previous to this time. No Hummingbirds had been observed around my home since the migration season until July 2, when a big bed of petunias commenced to bloom. The Hummers appeared immediately upon the scene and there have been from two to a dozen Rufous Hummers every day since that time.

On July 6, another trip to the Columbia River bottoms revealed the presence of a colony of about eight or ten pairs (judging by the number of singing males) of Red-eyed Vireos. One nest containing three eggs was discovered. This constitutes the first breeding-record for Multnomah County and possibly for western Oregon, and adds to the few records of the presence of this species in western Oregon. A visit on July 13, and one on August 10, found these birds still present

and in song. On the July 6 visit I was particularly impressed with the enormous numbers of young Gairdner's Woodpeckers that were about. These birds are far more abundant in this district than in any summer season since I commenced to make bird-notes there. Other birds that were particularly abundant were Yellow Warblers, Long-tailed Chats, Oregon Song Sparrows, and Western Robins.

During the latter part of July, I made a visit to Wallowa County in the northeastern part of the state. One of the most striking things noted here was the tremendous increase in the number of Western Wood Pewees which seemed to be found everywhere. Mr. Stanley G. Jewett, traveling in another part of Wallowa County, noted the same thing, and Mr. W. A. Elliott, of Portland, who had been in the Trask River district in Tillamook County, also commented on the great number of these birds.

While I was in Wallowa County, a trip into the country at the head of Minam River revealed the presence of greater numbers of nesting Gray-crowned Leucostictes and Pipits than I have ever before noted in those mountains. Young Leucostictes of all ages were present and a few young Pipits were noted out of the nest. This was in a high country which I had never previously visited and which I do not believe had previously been visited by any ornithologist. On the trip I probably saw several hundred Leucostictes and several hundred Pipits. Mr. Jewett reports a similar experience in the country around Aneroid Lake and Pete's Point at the head of the Wallowa River.

On August 10, an Arkansas Kingbird was noted on the Columbia River bottoms. This makes the third individual bird noted in that locality this summer, the two others having been reported in a previous 'Season' article. On the August 10 visit, young Purple Finches were present in great numbers, feeding on little willow catkins. Young Lazuli Buntings were also exceedingly abundant. Other species that have succeeded in raising most of their young were, Pacific Yellow-throats, Russet-backed Thrushes, and Yellow Warblers. The feature of this trip, however, was the

great invasion of Red-breasted Nuthatches. This bird usually stays in the mountain country until much later in the season. In fact, I do not believe I have a previous summer record for this species in this district. On this trip we saw a great number and heard a great many more. They were accompanied by a few Slender-billed Nuthatches, but the great bulk of the invasion was the Red-breasted species.—IRA N. GABRIELSON, *Portland, Oregon.*

SAN FRANCISCO REGION.—Excessive dryness, the usual number of cool summer days with dull, gray skies are making the normally quiet season of bird-life seem still more quiet. However, observations by various people indicate the usual abundance of birds for this season. On June 15, a group of Audubon Association observers visited Golden Gate Park in San Francisco, finding a total of twenty-nine species. Their most interesting find was a large Allen's Hummingbird population, with eleven nests in the bargain; a flock of twenty-six Turkey Vultures was noted; Mallards, Coots, Quails, Robins, and Chickadees were nesting. On July 13, another group visited Claremont and Strawberry canyons in Berkeley, seeing fifteen resident species and five summer visitants—Black-headed Grosbeak, Western Warbling Vireo, Western Flycatcher, Pileolated Warbler, and Russet-backed Thrush.

On August 9, a survey of the lower campus of the University of California, in Berkeley, yielded nineteen species. Summer visitants seen at this time included Allen's Hummingbird (a single male), Western Warbling Vireo, Yellow Warbler, Black-headed Grosbeak, and Russet-backed Thrush. It has been interesting to note the conspicuousness of resident over summer visitants the last few weeks in my walks on the campus; and the most conspicuous bird here at this time is the Anna Hummingbird.

Perhaps the most interesting observation for this season was the finding of Road-runner tracks, and later, the bird itself, by Dr. Grinnell and a group of students. This is one of the rarer birds of the Bay region, and one feels well repaid when such an opportunity comes his way. Another record,



of interest because of a transient species, is for a Slender-billed Nuthatch on the University campus on July 25.

Since early in July, few bird songs have been heard; Russet-backed Thrushes' were the only full songs noted in Strawberry Canyon on July 19 by Dr. Grinnell. However, Nuttall and Santa Cruz Song Sparrows continue to be heard in half-hearted bits of song; occasionally a Yellow Warbler makes its presence known in song, and on August 1 and 3, a Cassin Vireo was heard at intervals during the day.

Late evidences of nesting were furnished during this period by a pair of Western Flycatchers, carrying food to a nest of young on July 25. But here a tragedy had just occurred which sometimes happens in the bird world: the two nestlings which the parents were endeavoring to feed had just succumbed to the ravages of certain fly larvæ with which the nest was infested. The same day a family of Olive-sided Flycatchers, one of our least common summer visitants, was observed in Claremont Canyon. Previously, on July 19, many Russet-backed Thrushes were observed carrying food to their nests. Young Black-headed Grosbeaks were being fed in the nest on July 19; and today, August 14, immature Grosbeaks, still 'mewing,' cat-like, are feeding on ripening elderberries along the creeks. At this date, on the lower campus, a single family of California Jays is still following parents, calling for food. July 25, many Pine Siskins, young-of-the-year, were feeding about acacia trees on the campus and they are still lingering in the same locality.

That summer is passing and fall approaching is seen not only in the ragged and frayed appearance of the plumages of the birds, but by the gathering together of certain winter-flocking species. Bush-Tits are now going about in fair-sized flocks, while Linnets are going about in groups of a dozen or more. Pine Siskins and Green-backed Goldfinches show the same tendency. In one spot on the University campus, about a dozen of Berkeley's resident population of Robins have found a congenial feeding-ground in the neighborhood of the olive trees and are to be found there at almost any time.

Reports on water and shore birds are still meager. An interesting report comes from an eastern visitor, Mr. C. H. Rogers, who observed two Caspian Terns on San Francisco Bay on July 17. Mr. Dixon found numbers of Sandpipers, presumably Least and Western, on the mud flats on the eastern shore of the Bay, on July 10, but these had not greatly increased up to July 24. Mrs. Kelly has not yet observed Sandpipers on the Alameda shores, but reports the following: "On July 15 a few Curlews were observed; on July 17, one Godwit, one Willet, and eighteen Curlews; on July 24, Curlews had increased to forty-two, and three Willets were seen; on August 2, there were again only a few Curlews and three Willets; on August 12, only a few Curlews."—MARGARET W. WYTIE, *Museum of Vertebrate Zoology, Berkeley, Cal.*

LOS ANGELES REGION.—An abnormally dry spring, resulting in restricted development and early maturity of many forms of native vegetation, and early drying up of numerous small streams, was probably a factor in an unusual concentration of nesting birds in moist areas. Elder trees in such situations bore enormous crops of berries, which were eagerly sought by Linnets, Black-headed Grosbeaks, and Wren-Tits, the latter apparently feeding them to their young.

In a well-wooded portion of the Arroyo Seco, kept by the city of Pasadena in a state of nature and used as a recreational park, a small stream of water was flowing in late June. Here, during a brief walk, were noted five families of Black Phœbes. The Western Flycatcher and the Wood Pewee were seen and the Ash-throated Flycatcher was heard. The resident Spurred Towhees trilled from the dense coverts, and Wren-Tits, busy with family cares, abandoned their usual caution in respect to cover. The cheerful chatter of Bush-Tits prevailed as their numerous flocks foraged in the greenery. The mother Grosbeak led her striped brood to the feast of elderberries, while from the tall sycamores high above them fell peans of praise from the happy father. Similar scenes were enacted at Verdugo Woodlands with Russet-backed

Thrushes and Long-tailed Chats as chief musicians, and in the River woods of Griffith Park, where a family of Lawrence Goldfinches and a female Western Bluebird were seen.

A remarkable concentration of birds in very different association was found in a part of Griffith Park perhaps half a mile from any water. On a main drive, constantly traversed by automobiles, a stretch of roadside bank about 100 yards in length, evidently furnished nesting-sites for a pair of Western Blue Grosbeaks, three pairs of Lazuli Buntings, a pair of Wren-Tits, and a pair of Road-runners. All were feeding young out of the nests when found. No nests were located, as the bank was clothed with a nearly impenetrable mass of tall nettles and mugwort, bordered below by a dense mat of *Phacelia ramosissima*. The trees were tall old elders and *Rhamnus californica*, the latter having single trunks, short and stocky, eight inches or more in diameter, and all were bearing very abundant crops of fruit. The *Rhamnus* carried berries both ripe and green, and many blossoms, which were visited by bees, and they in turn were preyed upon by eight Western Kingbirds. Linnets feasted on the elderberries, and a Spurred Towhee and Anthony's Towhees scratched along the margins of a dusty road at the foot of the low bank. The whole was flanked by a wide field, weed covered, where the mother Blue Grosbeak diligently gleaned insects for her clamorous brood of three brown young, as large as herself, while from the tip of a dry weed-stem her handsome mate poured forth floods of his rich warbling song. The Buntings on the other hand found time between songs to do their share of work as 'good providers.' On a wire which crossed the weedy field, Mourning Doves, (eighteen on one occasion), Meadowlarks and Shrikes perched, and two Sparrow Hawks frequented the place. The Blue Grosbeak, singing from his perch on a wire above the bank as Mrs. F. T. Bicknell passed that way on June 27, revealed his secret, which led to the disclosure of the whole roadside treasure. Not until July 9 were two young bobtailed Road-runners seen crouching on a limb in the interior of an old

elder tree. An adult Road-runner was seen in the tree on a later date.

My last item from the place, late in July, reports all the species observed still there, the Blue Grosbeak still singing. An Anna's Hummingbird was always seen about the cascara trees, and a casual Plain Titmouse now and then dropped down from the oak-covered hills above. On this date Lark Sparrows were added to the roadside list. Phainopeplas have been found unusually abundant and widely distributed.

An early downward movement of Western Tanagers was noticed. The last week in July they were seen in numbers at Pasadena, Eagle Rock, and Santa Monica Canyon. At this time also an invasion of the city by great numbers of Black-chinned Hummingbirds received considerable notice. They were abundant about blossoming grevillea trees, here and there a century plant in bloom, and in parks and gardens wherever summer flowers bloomed in masses. Black-headed Grosbeaks, Bullocks and Arizona Hooded Orioles, in family units, were notably abundant as garden visitors at this time.

Purple Martins were seen feeding young at the Pasadena Colony, July 10, and at Long Beach, July 17 (F. B. S.). A Road-runner was seen on the Annandale Golf Links, August 5, and five Nighthawks coursing over Pasadena.

Visitors to the hills at evening are now hearing many Poorwills. A Dusky and a Pileolated Warbler are recent arrivals in a city garden.

Late northbound migrants along the shore were two Black Turnstones on June 12, two Wandering Tattlers on June 13, a few Black Terns and five Northern Phalaropes on June 22, one Northern Phalarope, one Black Turnstone, and many Black Terns on June 29. Five Semipalmated Plover and a few Black-bellied Plover remained at Playa del Rey throughout the season, as did Marbled Godwits, Willets, two American Egrets, one Snowy Egret, and a few Bonaparte's Gulls. Two Yellow-legs seen at Playa del Rey on July 6, and ten at Bolsa Chica on July 13, may belong in this category. The earliest return migrants were a little flock of Long-billed Dowitchers seen July 4 at Playa del

Rey, and on July 6, Black Terns were again seen. Scarcity of breeding-places may have been a factor in the movements of this species. July 10, a Little Green Heron and a few Coots were seen at Echo Park Lake. July 13, Black Terns, twelve Long-billed Dowitchers, and twelve Hudsonian Curlews were seen at Bolsa Chica. July 18, three Great Blue Herons returned to Playa del Rey marshes. July 21, Ruddy Turnstones visited the beach at this place. July 27, a Caspian Tern arrived in the marshes and has remained. More Long-billed Dowitchers arrived, accompanied by two Knots in beautiful summer plumage (Mrs. Bates and Miss Craig), one remaining until the night of July 30 (Miss Craig and F. B. S.). July 27 brought Northern Phalaropes in considerable numbers and a few Wilson Phalaropes. At this time half-grown Avocets and Stilts accompanied their parents, wading in shallow water. About twenty young Stilts were seen

and a smaller number of young Avocets. About fifty Avocets and many Stilts have summered there. On this date also the Kingfisher arrived, and Cinnamon Teal came into the ponds. July 28, Pintail Ducks arrived. Six White-winged Scoters and two Western Grebes were seen on the ocean. July 30, Hudsonian Curlews were very numerous. Semipalmated and Black-bellied Plover arrived—two of the latter being in nearly complete summer plumage. August 3, new arrivals were Young Willets, not fully grown, two White-faced Glossy Ibises, and two Spotted Sandpipers with summer plumage still complete. Summering Killdeer have been few as compared with their great abundance last year. August 6, two Caspian Terns and a Bittern were seen. August 13, five White-faced Glossy Ibises seen, Western Grebes five, Long-billed Curlews about fifteen, Avocets about one hundred.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

### THE FORTY-FIRST ANNUAL MEETING OF THE AMERICAN ORNITHOLOGISTS' UNION

The most important date in the bird students' calendar is the annual meeting of the American Ornithologists' Union. It is an even more exciting event than a May Warbler 'wave.' This year, for the first time in the Union's history, the meeting will be held in Pittsburgh—the exact place being the Carnegie Museum of that city. The date is November 11–13, inclusive. Officially, the Union will be in session from 10 A.M. to 4 P.M. each day, with a recess for luncheon. Unofficially, those in attendance will be in

session on a schedule that knows no hours. By those who take part in them, these unofficial conferences are considered more interesting than those announced in the program!

All bird students are welcomed to these annual gatherings whether or not they are members of the Union. Further information in regard to the Pittsburgh meeting may be obtained from Dr. T. S. Palmer, Secretary of the Union, 1939 Biltmore Street, Washington, D. C.



# Book News and Reviews

THE BIRDS OF THE LAKE UMBAGOG REGION OF MAINE. By WILLIAM BREWSTER. Bulletin Museum Comparative Zoology, LXVI, Pt. I. 8vo. 209 pages. Cambridge, Mass. 1924. Price, \$1.50.

The latter years of William Brewster's life were devoted to the preparation of this work on the birds of the Umbagog region. At the time of his death, in 1919, he had completed the introduction (pp. 5-33 of this publication) and his treatment of species from the Grebes to the Jays. The present volume carries us from Holboell's Grebe to the Coot. It is to be followed, we understand, by two others.

Brewster began his studies at Umbagog in 1871, at the age of twenty, and visited the region almost annually during the succeeding thirty-nine years. An exceptionally keen, persistent, sympathetic and thorough observer of birds and their environment, he was also a conscientious recorder in detail of all that he observed.

With a personality which won for him the esteem and friendship of guides and hunters, he garnered their experiences with the birds they knew, and was thus enabled to supplement his own knowledge with information of conditions which existed when the Umbagog region was primeval.

Overwhelmed by this vast amount of material, Brewster labored for years in the attempt to present an adequate picture of Umbagog bird-life. His passion for precision of statement, whether of science or sentiment, combined with his high standards of literary expression, made the task a difficult one and, handicapped by poor health, he progressed slowly. We have reason, therefore, to be thankful that the more important part of his work was finished before he laid down his pen.

To the younger generation of American ornithologists, William Brewster is little more than a name. His writings, unfortunately, never appeared in form where they would be easily accessible. The present Bulletin, for example, is destined, we fear, to have a far smaller circulation than it

deserves. For this reason we reprint from it, with permission, in this issue of BIRD-LORE, the biography of the Loon as an illustration of Brewster's style and method of treatment. The account of any other resident species would serve this purpose equally well, but we have selected the Loon because it was to secure studies for a background to a Museum group of this species that, in June, 1909, we made our one visit to Brewster at Umbagog. One has only to read this pen-portrait of the bird in nature to realize the value and amount of original observation this volume contains.—F. M. C.

THE PROTECTION OF BIRDS. An Indictment. By LEWIS R. W. LOYD. Longmans, Green & Co. London and New York. 1924. 16 mo. viii + 88 pages.

This is an arraignment of the Royal Society for the Protection of Birds, an attack on the late W. H. Hudson, and a defense of egg-collecting. The methods of the Royal Society are said to deserve "nothing but the strongest condemnation." Hudson's knowledge of British birds is declared to be "little more than rudimentary" and a statement by this author in regard to collectors is characterized as "nothing more nor less than a—lie, and the very cheapest kind of calumnious vituperation at that." We are also told that "far from being such an enemy to the birds as many people try to make out, the collector does as much or more to protect them than anybody else—certainly more than any other body."

The attack on the Royal Society was "prompted" by the views expressed by one of its members who, it was assumed, spoke authoritatively for the entire organization. Hudson, not having reached England until he was thirty years of age, is said to have had "too varied" an interest in nature to become, during the succeeding fifty years, "a competent and reliable field ornithologist."

The egg-collector's claim to first rank as a bird-protector is based, it appears, on the principle of not destroying the bird that

lays the equivalent of the golden egg but of "farming" it. That is, taking the first, and possibly the second, laying and then giving the birds an opportunity to proceed with their domestic affairs. Mr. Loyd, for example, tells us that he farms a "tiny colony of Bearded Tits," the location of which is known only to himself. We wonder why he guards his secret.

Doubtless sentiment sometimes has too little sympathy with science. It is also true that the collector as well as the protector has a case, but if this book is the case English oologists wish to present before the court of public opinion, they have assuredly been unfortunate in their choice of counsel.—F. M. C.

**ANIMAL LIFE IN THE YOSEMITE:** An Account of the Mammals, Birds, Reptiles, and Amphibians in a Cross-Section of the Sierra Nevada. By JOSEPH GRINNELL and TRACY IRWIN STORER. Contribution from the Museum of Vertebrate Zoology, University of California. University of California Press. Berkeley, California, 1924. Royal 8vo. xviii + 741 pages; 12 colored plates; 2 maps; many half-tones and text figures. Birds, pages 247-625.

This admirable work is based on a well-conceived and well-executed plan. It should add immeasurably to the recreational resources of the area it covers, and at the same time it forms a noteworthy contribution to scientific literature. Few recent volumes contain more original material. For many years it will prove an exhaustless source-book.

The accounts of habits, based on wide field experience and due appreciation of ecologic conditions give us not only detailed information concerning manner of life and occurrence, haunts, voice, appearance, etc., but some conception of the animals' place in nature. We wish that this analysis were as adequate in sentiment as it is in science. There are many photographs of scenery, birds, nests, eggs, and specimens, and a series of beautiful plates by Allan Brooks. We mention especially the painting (Pl. 4) of the Band-tailed Pigeon in its home, and the plate (8) of Sparrows' heads, as two wholly different but equally successful types of ornithological illustration.—F. M. C.

**THE BIRDS OF ALABAMA.** By ARTHUR H. HOWELL, Assistant Biologist, Bureau Biological Survey. Issued in cooperation with the Biological Survey and the Department of Game and Fisheries of Alabama, Montgomery, Ala. 1924. 8vo. 384 pages; 7 plates; 31 text-figures.

This standard work is based largely on field-studies conducted by the author as a representative of the Biological Survey. The report on life-zones and mammals has already been published in *North American Fauna*, No. 45 (1921). Here we have a systematic treatment of the 314 species and subspecies of birds recorded from Alabama. Under each is given a summary of its status and time of occurrence, its general habits and, usually, its food-habits. The whole makes a useful, authoritative work of reference, and both federal and state authorities are to be congratulated on a cooperation which has produced such admirable results.—F. M. C.

#### The Ornithological Magazines

**THE AUK.**—The leading article of the July number is a third part of Herrick's illustrated account of the Bald Eagle nesting in Ohio, and contains six full-page plates from photographs of adults and young about the nest. Most of the food landed at this eyrie was fish, less than one-seventh consisted of 'chickens,' with the balance of other food negligible. From their perches near the nest the Eagles sallied to the near-by lake shore and returned with fish in surprisingly quick time, making the round trip, "which could have been hardly less than three miles," in such periods as four to ten minutes.

Mrs. Bailey pictures bird-life of 'An Arizona Valley Bottom,' among other species the gregarious White-necked Raven, migrating Lark Bunting, and a gaudy Vermilion Flycatcher. Eifrig considers the lengthening and shortening days of changing seasons as a probable control of bird-migration, an elementary view of a subject on which further data and discussion will be of interest. Data on variation in construction of Song Sparrow song, as recorded by W. C. Wheeler, is discussed by Wheeler and Nichols; a convenient method of recording the construction

of bird-song is presented and various hypotheses which may be worth further investigation are touched on. Dr. J. B. May chronicles the work in 1924 at Mr. Baldwin's (Thomasville, Georgia) banding station (illustrated). A technical article is a discussion of the genera of Cacicques by Miller.

Wood describes the peculiar structure of the stomach of the Polynesian 'Nutmeg Pigeon,' furnished with horny points on the inside, by aid of which the soft outer covering of the nutmeg is removed and digested, allowing the woody kernel to pass through unchanged. In this connection experiments at the University of Wisconsin, to determine the resistance of seeds (apple, grape, strawberry, cherry) to the alimentary tract of the domestic Pigeon are recorded in General Notes (Sayle). Results obtained were entirely negative, all seeds being destroyed before possible germination.

Among other items in General Notes we find 'Gulls and Terns Feeding on the Seventeen-Year Cicada' (Forbush). A southern species, the Mississippi Kite, is recorded at Cape May, N. J., by members of the Delaware Valley Ornithological Club (Stone), which, taken in connection with other such 'casual' records at that point, is indicative of a tendency for southern stragglers to wander coastwise north of their true range, unsuspected before the recent intensive observation there.—J. T. N.

THE CONDOR.—The July number of *The Condor* contains five general articles on unusually diverse subjects. Dr. Casey A. Wood contributes a comprehensive paper on 'The Starling Family at Home and Abroad,' which outlines the distribution, introduction, habits, and economic status of the European Starling (*Sturnus vulgaris*), the Common Mynah of India (*Acridotheres tristis*) and the Crested Mynah of China (*Aethiopsar cristatellus*). At the present time when the Starling is spreading rapidly in the East and the Crested Mynah is gaining a foothold in British Columbia, this account is most opportune and welcome.

'Banding White Pelicans,' by Prof. H. B.

Ward, gives some of the results of work in the Yellowstone National Park in July, 1922. Of some 70 young birds banded on Yellowstone Lake, seven returns have been received from various points in Montana, Idaho, and Utah, and one from Otatitlan, 80 miles from Vera Cruz, Mexico. Most of these Pelicans seem to cross the Continental Divide before starting on their journey south. A. D. Henderson gives a brief account of 'The Common Loon in Alberta,' including several nesting records and dates of arrival for seven years at Belvedere.

Two original contributions on oology merit careful consideration. In an article on 'Vigor, Distribution, and Pigmentation of the Egg,' C. K. Averill undertakes to show that species that migrate farthest are the most vigorous and lay the most heavily pigmented eggs. The data presented are interesting, but some of the conclusions that species such as the Bald Eagle and some of the Finches which lay unmarked eggs are less vigorous than near relatives that lay spotted eggs are certainly open to question until supported by further explanation and data. Walter C. Hanna has tabulated the 'Weights of about 3,000 Eggs,' which he suggests should be compared whenever possible with the weights of the adult birds.

Among the brief notes are records of a Brown Pelican taken at Dos Cabezas, Ariz., which proves to be an addition to the list of Arizona birds, and a California Condor in captivity at the Selig Zoo in Los Angeles, Calif., which is "believed to be the only one in captivity." Even the most casual inquiry would have shown that such a conclusion is entirely unwarranted as the National Zoological Park in Washington contains three specimens and several others might be located in other zoos.

The number closes with the annual 'Directory of Members of the Cooper Ornithological Club,' now including 840 members, and a list of 2,105 birds, representing 78 species, which have been banded during the past year in the 'Western Province.'—T. S. P.



# Bird-Lore

A Bi-Monthly Magazine

Devoted to the Study and Protection of Birds

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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## SUBSCRIPTION RATES

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Bird-Lore's Motto:

*A Bird in the Bush Is Worth Two in the Hand*

FACING a blank sheet of paper and turning our back to the window, we discover for the first time the applicability of the term 'Editor's Easy Chair.' Hitherto we had vaguely supposed it to be a piece of furniture in which an Editor was at ease, though we have never understood how such condition could be productive of editorials. But on this mid-August afternoon, at any rate, we find that an easy chair is one that faces a window far more easily than a desk. Turn as we will toward the left and duty, some unseen power swings us to the right and light—and birds. A Robin calls softly but persistently "Come, Come." A Song Sparrow bids us listen to the closing notes of the song season; a Flicker snaps a rhythmic "I'm with you, I'm with you." We can resist no longer and turn squarely around to find the lawn in possession of one of those motley gatherings of birds which favorable surroundings and the flocking impulse bring together at this season.

A Catbird and a Song Sparrow are enjoying a sociable bath in the pool almost beneath my window. A Redstart and a Red-eyed Vireo are in an overhanging dogwood. Five Robins, a Flicker, a Brown Thrasher, and three Song Sparrows are gleaning each in his own way beneath an apple tree. Two apples, in rapid succession, drop among them, but they calmly accept this ever-recurring demonstration of Newton's law. A gray squirrel follows the apples in search of a ripper one than the tree affords, and a chipmunk—at what he seems to consider great personal risk—scurries across the lawn. The

birds pay no attention to them, but a Wood Thrush, perhaps with reason, calls sharply from the hedge the chipmunk entered.

A half-dozen or more Robins seem to be playing tag or follow-the-leader through the grape arbor, but rapid as is their pace and abrupt their turns, for speed and sheer wing-dexterity they are outclassed by three Hummers, all apparently males. For reasons known only to themselves they pursue one another through the maze of hollyhocks, phlox, and dahlias, or in lightning dashes to a perch on an overhead wire. There, with complete composure, they preen themselves and shortly resume their mad flights amid the flowers.

A Baltimore Oriole explores the terminal twigs of a cherry tree, as though he were searching for fruit, and scolds softly—perhaps because he finds none. But his is too cheerful a nature to refrain long from whistling. Now he drops to the hollyhocks and visits stalk after stalk, skilfully puncturing their pods apparently for the soft seeds they contain. A young Grosbeak, whose rose-lined wings reveal his sex, perhaps in imitation of the Oriole, tests the hollyhocks but seems to prefer some food lower down, where I now see a half-grown rabbit quietly nibbling.

An hour has passed and, still undisturbed, the birds have the lawn and its surroundings to themselves. Three Crows, doubtless members of a family that nested not a hundred feet away, perch in a dead chestnut at the foot of the lawn, and in the distance Blue Jays are calling. There are Warblers in an apple tree almost beyond the limit of my glass, and I can make out only a Blue-wing; but a Thrush, certainly either Olive-backed or Gray-cheeked, which came to within thirty feet of my window, showed that I was receiving true migrants as well as restless residents.

I have still to mention a Downy Woodpecker, a Wood Pewee, a single English Sparrow, a flock of conversational Starlings feeding, I believe, on elm beetles; coursing Swifts, and Tree Swallows floating slowly overhead bound for their roost in the marshes. And through it all the Editor's Chair has been immovable!—*Englewood, N. J., August 15.*

# The Audubon Societies

## SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

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### THE BIRDS OF AN OLD ORCHARD

With Photographs by A. A. Allen, Ph.D.

What bird is it that builds its nest in the orchard? So many times has this question been asked that I am going to try to answer it, partially in reply to the question and partially in an endeavor to add new interest to one of our bird haunts neglected because of its familiarity. In the spring, when the branches

are laden with fragrant blossoms and migrating birds flit from flower to flower, no one waits for an invitation to search its recesses for unfamiliar Warblers, but when the petals have fallen and a great sameness comes over the regular rows of trees, we naturally direct our steps towards the more attractive woodlands. It is not until we are gathering fruit in the fall, or, until the November storms strip the leaves from the branches and expose the many abandoned birds' nests, that we realize we have missed something, that we have overlooked an opportunity for making good observations at our very doors.

What bird is it that nests in the orchard? It is probably one of about thirty species that regularly nest in orchards in eastern United States, or it may be one of a dozen other tree-nesting birds that sometimes elect orchards for their abodes,



A MALE FLICKER AT ITS NESTING-HOLE.  
FLICKERS OFTEN NEST IN ORCHARDS

Most likely, however, if it is a nest that has been merely noticed in passing by an orchard after the leaves have fallen, it belongs to a Robin, or an Oriole, or a Goldfinch, for their nests are the most common and the most conspicuous. Of course the most satisfactory way to identify any bird's nest is to see the bird at its nest, for it permits one to make many more observations than does the mere discovery of the nest after the leaves have fallen. By October 1, however, when these pages are printed, the birds are all through nesting and there is no alternative, one must work with the nests alone. It is not difficult to identify them, however, and it makes a very satisfactory class exercise, for everyone can enter into it and no harm can come to the birds. Furthermore it gives a very good introduction to the orchard and, inasmuch as the same birds tend to return to the same orchard the following year, it prepares one by teaching him where and what to look for the following season. The birds never use the same nests a second season and it does no harm to remove the nests for the school collection if desired.

For the sake of convenience in identifying the nests we will divide the orchard birds into six groups: (1) Birds that nest in holes; (2) birds that build hanging nests; (3) birds that build nests containing sticks or twigs; (4) birds that decorate the outside of their nests with bits of lichens; (5) birds that build felted nests of cottony materials; and (6) birds that build nests largely of grasses and straws. We will begin with the birds that nest in holes.

### *Birds That Nest in Holes*

In the modern well-cared-for orchard that is pruned each year and has all dead branches cut out, there are not many places for these birds to nest. The pruning is a desirable practice for the health of the orchard, but it drives away some of the most beneficial birds, so an effort should be made in every orchard to bring them back by putting up bird-boxes to replace the dead branches. In most of the older orchards, however, always enough dead wood appears in the trunks of the trees, where branches have been cut off, to attract the Flickers and Downy Woodpeckers, and they do the carpenter work necessary



AT THE BOTTOM OF THE HOLE  
Flickers and other Woodpeckers build no nests, but lay their eggs on the chips at the bottom of the hole



for the homes of Bluebirds, Nuthatches, Chickadees, Wrens, Crested Flycatchers, Tree Swallows, Screech Owls, and the ever-present Starlings and House Sparrows. Some of their old holes are likewise used by red squirrels, flying squirrels, and deer mice, so that one has plenty of choice in deciding what has been the last tenant of any hole under observation. The mammals can usually be eliminated, however, by the presence of cherry pits or pieces of nutshell in the nest, which is usually made entirely of shredded bark.

It is easy to tell whether a Flicker or a Downy Woodpecker first excavated the hole, because the opening made by the Flicker is two inches or more in diameter, while that of the Downy is but one and a half inches. Red-headed, Red-bellied, and Hairy Woodpeckers make intermediate-sized holes, but they usually confine their operations to larger trees than are found in an orchard. None of the Woodpeckers builds a nest at the bottom of the hole, but merely lays its eggs on the bare chips. If any nesting material is found, it indicates that some other bird has usurped the hole. If there are a lot of sticks or twigs entering into the make-up of the nest, one can rest assured it was made by a House Wren. If it is made entirely of dried grasses, it is probably a Bluebird's; if it contains a cast snake's skin, it is probably a Crested Flycatcher's, and if it contains only a few straws and a few feathers, it is probably a Tree Swallow's nest. If the nest is made of moss and wool and bits of bark, it is a Chickadee's or a Nuthatch's, although the latter bird more often nests in a natural cavity of greater size where there is plenty of room for a large family. Starlings and House Sparrows build rather bulky nests in the cavities, usually of yellowish straws and feathers, those of the House Sparrow roofed over when fresh. If one finds a lot of feathers at the bottom of the hole and no other nesting material except perhaps a few pellets of bones and fur, he can rest assured that a Screech Owl has been occupying the cavity and that the fur and feathers are remains from his victims. There is a certain romance surrounding every hole in a tree and a fascination to the work of discovering what bird made it or what have been its occupants.

### *Birds That Build Hanging Nests*

By a hanging nest is meant one that is supported only at the rim, with the bottom hanging free. Only the Orioles and Vireos build this type of nest, those of the Vireos being much smaller than those of the Orioles, and less than two inches deep on the inside. The two Orioles' nests are very different, that of the Baltimore Oriole being made of strings, yarn, milkweed fiber, etc., while that of the Orchard Oriole is made of dried grasses. The nest of the Orchard Oriole might almost not be considered a hanging nest, as the bottom often rests against a branch, though it is supported almost entirely at the rim. The three Vireos' nests that are likely to be found in an orchard are practically indistinguishable as to structure, but they are usually placed in different parts of the tree. The Red-eyed Vireo builds near the tips of the lowest branches,



ORIOLES AND VIREOS BUILD HANGING NESTS. THIS IS A YELLOW-THROATED VIREO AT ITS NEST



THE MOURNING DOVE'S NEST IS A PLATFORM OF STICKS

the Warbling Vireo goes to the outer extremities of the uppermost branches, and the Yellow-throated Vireo usually hangs its nest in a small branch fairly close to the trunk or larger branches of the tree, somewhere near the middle of the tree.

*Birds That Build Nests Containing Sticks or Twigs*

Occasionally Crows or Green Herons build their large stick nests in orchards, but such instances are so unusual that they are negligible. The Heron's nest is flat and without any lining, while the Crow's is deep and well lined. Of the smaller nests, the Blue Jay's is the largest and bulkiest, being over three and a half inches inside diameter. It is deeply hollowed, as is also the Migrant Shrike's. Indeed the two nests resemble each other closely, but the Shrike's is less than three and a half inches inside diameter and usually contains woolly material in the lining, a substance seldom found in the Blue Jay's nest which is ordinarily lined with rootlets. Nests of the Mourning Dove and of the Black



THE GOLDFINCH'S NEST IS FELTED WITH COTTONY MATERIALS AND  
IS WIDER THAN IT IS HIGH



and the Yellow-billed Cuckoos are likewise built of twigs and frequently in orchards, the Dove's more often than the Cuckoos'. All three nests are mere platforms of twigs very slightly hollowed, and the Dove's nest has practically no lining of rootlets or leaves. The Cuckoos' nests can be distinguished from the Doves' by the lining of leaves or rootlets, but I have as yet found no good way of distinguishing the nests of the two Cuckoos.

#### *Birds That Decorate Their Nests with Lichens*

There are but two orchard birds that fall into this group, the Ruby-throated Hummingbird and the Wood Pewee, and their nests are very different. That of the Hummingbird is about the size of a walnut and made of cotton or plant down, with a complete covering of lichens or bits of moss; that of the Pewee is about three inches in outside diameter, very shallow, and built of bark fibers and rootlets, with a scattered covering of lichens. Both are beautiful structures and well worth any effort to find them.

#### *Birds That Build Felted Nests of Cottony Materials*

Here belong the Goldfinch, the Yellow Warbler, and the Least Flycatcher. The Redstart that builds a nest like the Yellow Warbler, but thinner at its upper margin, seldom ventures into the orchard to nest. The Goldfinch's nest is distinguishable from the others by the fact that it is always wider than it is high, outside measurements, while the Yellow Warbler's and Least



THE CHIPPING SPARROW'S NEST IS MADE OF GRASSES AND ROOTLETS AND THICKLY LINED WITH HORSEHAIR. THE LARGE EGG IS THAT OF A COWBIRD

Flycatcher's are higher than wide. The Goldfinches nest late and always use thistledown in the lining, but this material is not ready for the earlier-nesting Warbler and Flycatcher. It is more difficult to distinguish the nests of the Warbler and of the Flycatcher, but the former usually selects the upper vertical branches, while the latter saddles his nest on the horizontal branches and usually adds bits of paper to the outside of the nest as no law-abiding Yellow Warbler would do.

*Birds That Build Nests Largely of Grasses and Rootlets*

There are two divisions of this group: those like the Robin, Wood Thrush, and Grackle that always employ a middle layer of mud in shaping their nests, and those like the Kingbird, Cedar Waxwing, and Chipping Sparrow that never use mud. Of the first group, the Wood Thrush and Grackle do not ordinarily nest in orchards in most parts of the country and need not usually enter into consideration. Where they do, the nest of the Grackle can be distinguished by its larger size, being over four inches inside diameter, the others being less. The Wood Thrush's nest can be distinguished by the presence of dead leaves and usually moss clinging to the bottom of it. Of course the Robin's nest is everywhere the most abundant, and practically every nest found in the orchard that contains an inner layer of mud is a Robin's.



THE WAXWING'S NEST CONTAINS SOME WOOLLY MATERIAL AND HAS LOOSE GRASSES HANGING FROM IT

Of the other nests built of grasses and rootlets, the Chipping Sparrow's is the smallest and can always be distinguished by a thick horsehair lining. The Kingbird's and Cedar Waxwing's nests are much alike, both containing little horsehair but usually with some woolly material woven into the grasses and rootlets. The Waxwing's nest is usually smaller and deeper, being about an inch and a half deep, while the Kingbird's measures but an inch in inside depth. The Waxwing's nest usually has some loose yellowish grasses protruding from it,

while the Kingbird's is more compact. Occasionally the Rose-breasted Grosbeak and the Scarlet Tanager nest in orchards, and their nests resemble the Cedar Waxwing's except that they never contain the woolly materials found in the latter. The Grosbeak's nest is never so well made as the Tanager's, usually having no apparent lining, while the Tanager's is well lined.

Some nests preserve their shape much better than others and frequently one finds the remains of nests that only an expert can identify. At times the lining blows out of a Robin's nest or the rains cause it to settle until it appears as large as a Grackle's. Young Yellow Warblers will sometimes trample down

the sides of their nest until it becomes shaped like a Goldfinch's, or only the basal twigs of a Blue Jay's or a Shrike's nest that has blown out of place may remain in the tree and give the appearance of a Mourning Dove's nest. Only well-preserved nests should be saved for the collection and these should be reinforced by sewing them to the branch with black thread or fine copper wire. The Cornell University study collection of birds' nests is kept in boxes of uniform size, twelve inches square and four inches deep, the sides made of three-eighth inch pine and the bottom of 'beaver board.' The nests are fastened to the branches so that they will not pull loose, and the branch holding the nest is fastened to the side or bottom of the box. Whenever it is impossible to preserve the branch on account of its size, or when the nest has been built on the rocks like a Phoebe's, the nest is fastened directly to the bottom of the box. The boxes are stained brown and bear a neat label identifying the nest. Most of the boxes contain but a single nest, but some contain several small ones which it is obviously advantageous to have together for comparison, as in the case of the Vireos. The boxes are not covered and are kept on open shelves arranged



THE ROBIN'S NEST CONTAINS A MIDDLE LAYER OF MUD



in the order of the A. O. U. Check-List, except when an unusually large nest has to be kept elsewhere and its place marked by a dummy. These boxes are freely handled by over a hundred students each year, but the nests still remain in good condition.

If one does not wish to go to the expense of having special nest boxes made, a very satisfactory substitute will be found in the cardboard collar boxes which one can secure from any store dealing in men's apparel.

#### SUGGESTIONS TO TEACHERS

There are many ways of starting a study of birds' nests with a class that will occur to any teacher. Whenever it is possible it is well to start with a field trip, after the leaves have fallen, to some near-by orchard. Take this number of BIRD-LORE with you and identify the nests that the children find while they are still full of the enthusiasm of discovery. Perhaps you will find only two or three kinds, but the children will be taught what to look for and they will go ahead by themselves and, in a remarkably short time, you will have a good collection of the nests of local birds that nest in trees or bushes. This number of BIRD-LORE covers only the orchard birds, but in the issue for November-December, 1920, will be found a more complete key to the nests of birds found in eastern North America. Better have a collection of collar boxes ready to receive the nests before they fall to pieces and drop litter over the school. As soon as the nest has been identified, put a nice label on the box, giving its name, the name of the boy or girl who found it, and the place where it was found.

Another good exercise would be to make a map of the orchard, numbering the trees and marking the ones where each nest is found. The following year the orchard should be revisited and the position of the new nests compared with the map of the year previous. No better way can be found for eliciting a personal interest in birds than by thus showing the children how many of the birds come back to the same place to nest year after year. It will no longer be a matter of just Robins and Chippies and Doves, but it will be their Robin, their Chippy, and their Dove returning to them. And then in cases where the birds do not return, they will be constrained to wonder what may have happened to them on their long migrations and an interest in bird-protection will be started.—A. A. A.

## FROM YOUNG OBSERVERS

REDWINGS *vs.* CROW

It was a warm windy day. Two Redwinged Blackbirds perched peacefully by their home in a swamp, occasionally uttering their queer calls. They were suddenly disturbed by a Crow. This large black bird swooped down close to their nest. Perhaps he was hungry and after eggs. He did not get the Redwing's eggs, however, for these smaller birds were after him immediately. They darted about the head of the Crow, who was unable to protect himself from such furious attacks. After a series of turns in the air, the Crow finally decided to go away. This created quite an excitement in the Blackbird home.—CARL PIERCE (age 14 years), *Berea, Ohio*.

## BOBBIE—A PET ROBIN

Bobbie is the dearest Robin I ever hope to know. I found him one day after a storm and put him in a bush in hopes his mother would find him, but the next day, when I passed the spot, he was still in the same position and seemed very weak, so I took him home and fed him. Mother told me very decidedly that I must take him away the next day, but when the time came to take him away, the whole family had become so attached to him that we could not part with him and Mother told me to let him stay. So there he stayed for a month or more.

We fed him bread and milk and strawberries or blueberries. He really preferred blueberries and, if he had his choice, he would grab the blueberries. He had a very decided taste and if his milk was the least bit sour he would not touch it.

We kept him in the house nights and outdoors during the day. He was slow about learning to fly, but when he did learn he did some real traveling.

One day he went on a little trip. We soon missed him, so Mother tapped on his dish for a long time, but no Bobbie came hopping up for food. Finally Mother went out the path toward the garage and all of a sudden she heard a *peep* and Bobbie flew down and landed on her shoulder. He made lots of fuss, as much as to say, "Oh, I'm so glad to see you I don't know what to do!"

Bobbie loved to be around where people were working. He liked best to watch or rather to help paint. One day Dad was painting something bright green and Bobbie insisted upon rubbing up against the painted parts, resulting in green paint all around his left eye and on the end of his tail. The marks are at least two months old and he is still wearing them, so we are sure it is our Bobbie when we chance to see him.

The biggest occasion of the day was when Bobbie took his regular 11 A.M. bath in the puddle of cold water near the pump.

Shortly after Bobbie learned to fly he started to wander away from home and one time he wandered so far he has never returned to our cottage. We have seen him some distance up the beach and he is with other birds, so we are sure that he is safe.

We have had lots of pets since we have been coming to Lake Bemidji, Minn., but never have we had one like our Bobbie, and I am afraid that no cat or skunk or porcupine will ever be the kind of nice pet that Bobbie was.—CHARLOTTE GOWRAN (age 15 years), *Bemidji, Minn.*

### NOTES ON THE OVEN-BIRD IN GEORGIA

A young friend and I went for a walk in the woods on the outskirts of Gainesville, May 15. We suddenly came upon an Oven-bird walking along hunting for food. I at once knew it was an Oven-bird because of the way it walked and because of its color. It walked like a Chicken, scratching among the leaves for its food. We stepped very quietly so the bird did not notice us, but went right on feeding. We followed it, observing it very closely, and saw it eat many little insects; when it found a big fly-larva, it saved it for its young.

Keeping at a safe distance behind the bird, we crept along watching eagerly to see where her nest was. As we neared it, the male bird began to call, but the female kept silent. She flew up into the trees and then dropped gradually down from branch to branch as she neared the home. Under a low-hanging branch of an old hickory was a small huckleberry bush, and close beside it was the grass-covered nest, with its round door facing southward. A good-sized white crystal quartz rock was near enough to mark the spot. She heard us approaching at this moment, so quickly turned, and with spread wings almost touching the ground, she made off into the bushes. The boy ran after the bird thinking it had a broken wing and needed help. But I was sure this was its way of diverting us from the nest.

We soon had discovered our first Oven-bird's nest. It was also the first nest of this kind reported for the town, so we were most interested to examine it closely. It was made of mud, with horsehair lining with good-sized wheat straws for the cover, and a canopy of old brown oak leaves piled up around it made it unnoticeable from either side. The leaves of the bush beside it hung down over the entrance, hiding the hole.

The next day we went again to photograph it, and were just in time to scare away a blacksnake which was about to attack and destroy the brood. Perhaps that explains why so few Oven-birds have ever been found nesting in this locality. The next day we went back to the nest and found that two of the three young birds were gone. The following day the third bird had gone, and we were left to hope that it was able to fly and had not been eaten by the wary enemy.—JOHN HULSEY, Jr., *Gainesville, Ga.*



# CRESTED FLYCATCHER

By T. GILBERT PEARSON

## *The National Association of Audubon Societies*

EDUCATIONAL LEAFLET NO. 118

The harsh, strident notes of the Crested Flycatcher are among the characteristic sounds of the forest-land areas of eastern and central United States. Although especially fond of woodlands, where the trees are tall, this bird does not confine itself to such areas. In cut-over regions, where the new trees are coming on, you will find it. In pine barrens, with scattered growths of stunted oaks, the Flycatcher is at home. Among the blue-gums bordering streams in swamp lands it is abundant. It comes to the trees that shade the lawns, both in the country and in towns, and you may find it also in almost any old apple orchard.

John Burroughs, writing of the Flycatcher family, said: "The Wild Irishman of them all is the Great-crested Flycatcher, a large leather-colored or sandy complexioned bird that prowls through the woods, uttering its harsh, uncanny note, and waging fierce warfare upon its fellows."

In the minds of many people the Crested Flycatcher is associated more or less with the Kingbird, to which it is closely related. In no way do the colorings of the two resemble each other, yet they are both Flycatchers; both leave about the same time in autumn and return about the same period in spring. In speaking of one, writers usually refer to both, and comment on their relative abundance. It is rather a wide-spread idea that the Kingbird is decidedly more common than the Crested Flycatcher, but with this idea I cannot agree. There are regions where the Kingbird is more common. In the great marshes of Louisiana, for example, it is especially abundant in summer and the Crested Flycatcher is rarely if ever seen.

Along the roads, about the fields and more open places generally, Kingbirds are more in evidence, and it is through such places that most people pass. The writer is acquainted with considerable sections of the country where the Kingbird is rarely seen and the Crested Flycatcher is an extremely abundant bird. In parts of the Southern States it is sometimes known as the 'Yellow Kingbird,' or 'Yellow-tailed Bee-Martin.'

Although a noisy bird, it is often very difficult to locate after hearing its calls. Perched on some upper twig, often near the top of a tall tree, its motionless body blending with the surroundings presents such an obscure object that it is not easy to discover. A little patience, however, may reward the searcher. Dashing away for some insect, it may return to its perch or alight in a better position for observation. A little later it may go in pursuit of some passing bird, or three of them in close tandem may pass swiftly through the woods.

At times it is very animated, and the long feathers of the head are raised in the form of a crest. The general color of the bird is grayish brown above; the throat and breast light gray, and the belly sulphur-yellow; also the tail is washed with yellow. It is about 9 inches long—that is to say, about an inch shorter than a Robin, or  $2\frac{1}{2}$  inches longer than an English Sparrow.

Over the northern part of their range these Flycatchers first appear early in May. They announce their presence by loud cries which, once heard and identified, are not likely to be mistaken for those of any other species. Late in May or early in June, egg-laying begins, and until the young have left the nest it is most jealously guarded by the watchful parents. A Crested Flycatcher's nest is built in a hollow at some distance from the ground, and is a wonderful assortment of materials. Apparently it is composed of almost anything easily collected in the neighborhood. It may contain twigs, pieces of bark, grasses, or even human hair combings. The hole selected may be that of a Woodpecker or of a Flicker, but very often the natural cavity in a tree is selected. The writer has seen the nest as low as 6 feet from the ground and as high as 30 feet. Frequently a bird-box is chosen, and the birds have been known to use a section of a Martin-house. I have found them in many odd places, as, for example, in an old gourd nailed to the side of a little-used outbuilding. One spring I watched a pair build their nest on the roof of a lean-to veranda in a little opening formed by the overhanging roof of the upper part of the house.

Mr. George F. Simmons, writing in *The Auk* for July, 1915, has this to say of two nests which he found in the neighborhood of Houston, Texas:

"In May, 1911, a pair of these birds occupied the joint and elbow of a stove-pipe hanging loosely by wires against the side of a small house on the edge of the Buffalo Bayou woods, about six miles west of Houston. On the 20th I took a stepladder and climbed up to investigate, causing the birds to desert the nest. Later the pipe was taken down and cleaned out, and the nest found to contain three eggs. The nest itself was a mass of rubbish of all sorts—cedar bark, twigs, grasses, feathers, pine-needles, and dead leaves, and was lined with horse-hair, feathers, and cast-off snake skin.

"I found another nest of the bird on June 6, 1914, which contained five eggs. An old lard bucket lying on its side in a tiny trough in a well-shaded sheep-pen on Taylor's ranch had been half filled with rubbish of various sorts: grasses, cedar bark, snake skin, chicken and guinea feathers, etc., and the eggs had been laid in a hollow in the material near the back of the bucket. To me this nest was especially interesting from the fact that Taylor's ranch is on the open prairie about a mile south of Pierce Junction, and at least four miles from the nearest timber. Quite a number of shade trees surround the house and sheep-pens, but I never would have expected this Flycatcher at such a place."

The Crested Flycatcher is famed far and wide for its habit of often using, in the construction of its nest, the cast-off skin of a snake. The writer has found a good many nests of this species and recalls only one occasion where close examination did not reveal evidence of this peculiarity. In this one instance there was, however, conspicuously present among the upper materials of the nest a strip of greased paper. Possibly the birds were unable to find a snake

skin and took this as a substitute. Among the theories advanced as to why it persists in this habit is the rather improbable one that, as most creatures are supposed to be afraid of snakes, the skin is used in the hope that it may frighten away unwelcome visitors.

The number of eggs laid vary from three to six, four being a very popular number. They are creamy white but heavily streaked with chocolate, and these markings run lengthwise of the egg. No other bird of North America lays an egg that could possibly be mistaken for that of the Crested Flycatcher.

Audubon, who observed so carefully the habits of many of our birds, was much impressed with the things he saw and learned about this species. In part he wrote:

"The Great Crested Flycatcher arrives in Louisiana and the adjacent country in March. Many remain there and breed, but the greater number advance toward the Middle States, and disperse among the lofty woods, preferring at all times sequestered places. I have thought that they gave a preference to the high lands, and yet I have often observed them in the low sandy woods of New Jersey. Louisiana, and the countries along the Mississippi, together with the State of Ohio, are the districts most visited by this species in one direction, and in another the Atlantic States as far as Massachusetts. In this last, however, it is very seldom met with unless in the vicinity of the mountains, where occasionally some are found breeding. Farther eastward it is entirely unknown.

"Tyrannical, perhaps in a degree surpassing the Kingbird itself, yet it seldom chases the larger birds of prey; but, unlike the Bee-Martin, prefers attacking those smaller ones which inadvertently approach its nest or its station. Among themselves these birds have frequent encounters, on which occasions they show an unrelenting fierceness almost amounting to barbarity. The *plucking* of a conquered rival is sometimes witnessed.

"In its flight this bird moves swiftly and with power. It sweeps after its prey with a determined zeal, and repeatedly makes its mandibles clatter with uncommon force and rapidity. When the prey is secured, and it has retired to the spray on which it was before, it is seen to beat the insect on it, and swallow it with greediness, after which its crest is boldly erected, and its loud harsh squeak immediately resounds, imitating the syllables *paiip*, *paip*, *payup*, *payiup*. No association takes place among different families, and yet the solicitude of the male towards his mate, and of the parent birds towards their young, is exemplary. The latter are fed and taught to provide for themselves with a gentleness which might be copied by beings higher in the scale of nature, and in them might meet with as much gratitude as that expressed by the young Flycatchers towards their anxious parents. The family remain much together while in the United States, and go off in company early in September. This species, like the Tyrant Flycatcher, migrates by day, and during its journeys is seen passing at a great height,



"The squeak or sharp note of the Great Crested Flycatcher is easily distinguished from that of any other of the genus, as it transcends all others in shrillness, and is heard mostly in those dark woods where, recluse-like, it seems to delight. During the love-season, and as long as the male is paying his addresses to the female, or proving to her that he is happy in her society, it is heard for hours both at early dawn and sometimes after sunset; but as soon as the young are out, the whole family are mute."

As the name implies, it is a fly-catcher. That is to say, it feeds very largely upon flying insects and therefore is an important factor in protecting the crops, as well as fruit and forest trees. Because of its value in this regard, it is protected by laws, both state and federal, throughout the United States. Like the Myrtle Warbler and some other birds it is not absolutely necessary for this bird always to have insects. In the fall many wild berries of various kinds are eaten. That it sometimes eats very large insects is shown by the observations made by A. H. Howell, one of the Government naturalists in Washington. While studying birds in south Florida, he found a Crested Flycatcher lying helpless upon the ground. Upon investigation he found the stomach had been greatly distended by a long hard object. The bird soon died and upon investigation he found in the stomach crosswise was a femur of a large grasshopper.

The summer home of the Crested Flycatcher may be described as that territory bounded on the north by Manitoba, Ontario, and New Brunswick, and on the south by Texas and south Florida. In winter the birds generally leave this country and may be found from Mexico southward through Central America and Colombia. They have been found as casual occurrences in Cuba and even Wyoming. It would appear on some rare occasions that individuals winter in the North or attempt to do so. Thus there are records of them having been found in Massachusetts during the month of December.

This bird is a representative of a very large family known in the bird books as *Tyrannidæ* or Flycatcher, representatives of which are found in various places in America. Members of the family are very abundant in the Tropics, and about thirty species reach the United States, among the better-known ones being the Phœbe, Black Phœbe, Peewee, and various species of Kingbirds.

# The Audubon Societies

## EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City.  
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THEODORE S. PALMER, *First Vice-President*      WILLIAM P. WHARTON, *Secretary*  
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Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership  
\$100 paid at one time constitutes a Life Membership  
\$1,000 constitutes a person a Patron  
\$5,000 constitutes a person a Founder  
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

## NOTICE OF ANNUAL MEETING

The twentieth annual meeting of the National Association of Audubon Societies for the Protection of Wild Birds and Animals will be held on October 28, 1924, in the American Museum of Natural History, New York City, at 10 A.M.

Reports from the President, Treasurer, and Field Agents of the Association will be read and other matters of interest to members of the Society will be presented. Luncheon will be served to members and delegates and

a conference of workers and others will convene in the afternoon.

A public meeting will be held at 8 P.M. on the preceding evening, October 27, in the large lecture hall of the Museum, which will be addressed by Dr. A. A. Allen, of Cornell University. Dr. Allen will show motion pictures of wild-life taken during his recent journeys in Texas and Florida.

The public is cordially invited to attend all sessions.

## GAME, HUNTER, AND LANDOWNER

In years gone by sportsmen had a wide field in which to range. America was sparsely settled and game was plenty. The country adjoining the large centers of population was looked upon as the natural arena where those who followed field sports might roam at will, regardless of the ownership of the land or the rights of farmers. Landowners looked upon hunter-trespassers as a matter of course during the fall and winter months. Some posted their lands with warnings against hunting, but few bothered to enforce their rights in the matter, and the hunter usually

escaped with a friendly warning or at most he was told that the next time he was caught on the property he would be prosecuted.

Since those far-off happy days, each succeeding generation of sportsmen has faced some new restriction to its activities, the inevitable result of increasing population, until today hunters of limited means are faced with the total abandonment of their favorite pastime unless some new method of adjustment is found between the landowner and the hunter.

The problems of game administration, free

shooting, and the rights of landowners are all so closely interwoven that no one may be approached with any hope of permanent solution unless all three are worked out at the same time and with full agreement as to result. The State owns the game, the farmer the land on which the game ranges and the hunter wishes to exercise his right to free shooting.

This three-sided problem is getting all the more complicated because the game is getting scarcer, the farmer is posting his land more universally, and the great army of hunters is each year increasing in numbers.

The only logical solution of the problem is for the State to bend every effort to increase the supply of game, the farmer to arrive at some method of making the game on his farm profitable to him, and for the hunter to approach the farmer in a different spirit than he has shown heretofore and to cultivate a profound respect for the amenities of life. While this method of solution would undoubtedly work out in time, more drastic measures are needed to help the hunter solve his end of the problem, because of the simple fact that all men do not have vision and all men do not have the attribute of self-restraint. The great majority of hunters show consideration for the rights of the landowner, but there are many who do not, and the good have to suffer for the sins of the wicked, as in every other form of human endeavor. There must be some means employed to compel the wrong-doers to walk in the paths of virtue, and laws have been evoked to this end.

Recently the State of New Jersey enacted a law compelling all hunters and fishermen to obtain the written consent of the landowner before they may enter upon posted property to hunt or fish. If a hunter or fisherman fails to do this and is arrested and found guilty, he may be fined \$20, and if the trespasser does any damage to the property and the charge is sustained against him, he may be fined \$500. Arrests may be made without warrant by the owner of the land or the lessee, as well as by an officer of the law.

North Carolina has had a similar law for many years and many other states have enacted legislation of like character, but New Jersey is the first state to definitely

sustain the landowner in the recovery of substantial redress for acts of trespass.

Such drastic legislation has been brought about solely because the thoughtless hunter has in many instances done serious damage to the landowner. He has broken down fences, tramped on crops, shot cattle or poultry, and even set fire to pasture lands and outbuildings. He has entered upon land which did not belong to him and acted as if it were his right to go and do as he pleased. Naturally he has aroused the resentment of the landowner, and the problem of sportsman and landowner has been brought to a critical stage.

The true sportsman, who is known as such in any community, will only be inconvenienced by this law, however, as in most instances he will be able to get permission to hunt on posted property, but the other class, the outlaws, so to speak, will be compelled to get in line and follow the rules of the game or give up their favorite sport.

Such legislation goes far to remedy the situation in so far as the landowner is concerned, but it does not solve the other two sides of the problem. The State which owns the game and the hunter who wants to shoot the game have yet to be reckoned with. There must be some meeting-ground where all three sides of the problem affecting game may be represented, and this can only be brought about by the organization in each community of an association of which the State Game Commissioner, the hunter, and the landowner are common members, and where they can work together for the best interests of all concerned. Such an organization may be called a Rod and Gun Club, Community Club, or what not, but the main idea is to get the three vital factors of game administration together, to the end that a better understanding may be promoted among them.

Through such cooperation the Game Commissioner would find an added stimulus in his work for the increase of game, the farmer would learn that the game on his land is an asset of no mean worth, and the hunter would come to know that only by carefully regarding the rights of the landowner would he be allowed to hunt and fish.—J. P. H.



## THE PAUL J. RAINEY WILD-LIFE SANCTUARY

By JOHN P. HOLMAN

Photographs by the Author

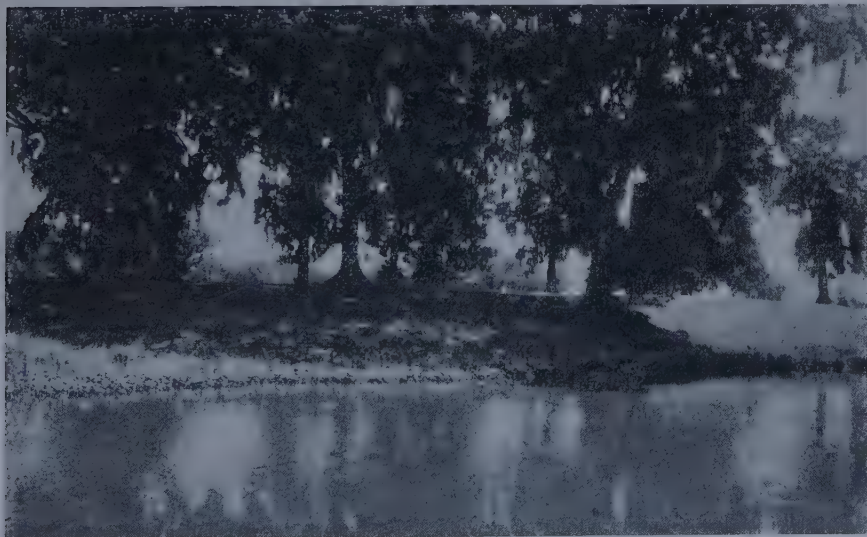
One of the principal wintering-grounds of the wild water-fowl of North America lies along the Gulf of Mexico, and nowhere are the conditions more favorable than in southern Louisiana. There nature has provided a wide stretch of marshland suited to their needs. For untold ages the Mississippi River has been bringing down on its broad bosom minute particles of soil from the Northland and depositing them along the Gulf coast until it has built up a great flat area, rich in all the mineral salts which sustain vegetation. The region is checkered with innumerable lakes and lagoons, feathered by tall grasses which isolate them from all but the creatures of the air. Only on the higher land of the 'Chenieres' or live-oak ridges does man make his home; all else lies under the great dome of the sky—a vast and solitary expanse of marsh and water.

When the icy grip of winter has closed the lakes and waterways of northern Canada, where wild-fowl spend the summer, they take up their long journey to the Southland and congregate in untold numbers on these marshes. In the days when game could be

sold, this region was the Mecca for the market-hunter and they pushed their pirogues into the most inaccessible recesses of the marshes in their quest for gain. Thither, too, came the sportsmen to take toll on the restless flocks as they passed from one lake to another or up the winding bayous, and many phenomenal bags were made.

As time went on and the teachings of conservationists began to be heard throughout the land, more stringent game laws came into being, and the importance of wild-life sanctuaries, or places set aside as refuges where wild animal and bird life would remain unmolested by man, became evident.

Under the jurisdiction of the State of Louisiana three separate Sanctuaries have been operated in this region for a number of years. They comprise in all about 170,000 acres and are strung out along the coast in Vermilion and Cameron Parishes. Marsh Island on the east was given by Mrs. Russell Sage, the State Game Preserve, across Vermilion Bay from Marsh Island to the west, was donated by the late Charles Willis Ward, and the Rockefeller Wild Life Refuge



MOSS-DRAPED CYPRESS TREES ON THE BANKS OF VERMILION RIVER



WATER HYACINTHS ON VERMILION RIVER

further along the coast to the west was given by the Rockefeller Foundation.

Between the State Game Preserve and the Rockefeller tract there lies a considerable extent of marshland, the western half of which is known as the Pecan Island tract, and the eastern half, adjoining the State Game Preserve, was recently owned by the Vermilion Bay Company, in which Mr. E. A. McIlhenny and the late Paul J. Rainey were interested. Upon the death of Mr. Rainey, his interest, comprising two-thirds, passed to his sister, Mrs. Grace Rainey Rogers.

As announced in the last number of BIRD-LORE, Mrs. Rogers recently gave this tract of land, comprising about 26,000 acres, to the National Association of Audubon Societies for the purpose of establishing the Paul J. Rainey Wild-Life Sanctuary. It extends from Schooner Bayou and Vermilion Bay on the north to the Gulf of Mexico on the south, and is bounded on the east by the State Game Preserve and Southwest Pass to Vermilion Bay. About one-third of the western boundary adjoins the Pecan tract and the remaining two-thirds is bounded by the McIlhenny holdings. A canal running from Vermilion Bay on the north to Chenier au Tigre on the Gulf separates the Audubon Society's tract from the McIlhenny property.

Representing the National Association of Audubon Societies, I left New York, Saturday, June 21, for the purpose of taking possession of this land and making arrangements for its administration. By previous arrangement with Clyde B. Terrell, duck-food specialist, of Oshkosh, Wisconsin, under contract to furnish duck-food for planting on the preserve, I met his representative, Mr. H. J. Hubert, and by arrangement with the Biological Survey of the United States Department of Agriculture, I met United States Game Warden, B. R. Britton at Abbeville, Louisiana, on June 25. Abbeville is situated on Vermilion River, about 18 miles from its mouth, and is about 30 miles north of the Sanctuary.

After purchasing provisions, engaging two colored men, and attending to numerous other preparatory matters, we loaded the power boat 'Vivian,' which I had engaged from Louis Roberts, of Lake Arthur, Louisiana, with a quantity of duck-food for planting, and left for the property at 9 A.M. on June 28.

Vermilion River winds through a region of entrancing beauty. Tall cypress trees line its banks, and from their branches hang garlands of moss which wave in the breeze like fairy banners. For several weeks the country had been suffering from drought and

the heat was intense. The river was choked with masses of water hyacinths or 'lilies' as they are called in the South, and the 'Vivian' had a hard time forcing her way through them in places where they had massed together, but we managed to squeeze through and reached Vermilion Bay at noon. The Bay lay like a great plain of molten lead under the tropical rays of the relentless sun. Far to the south a thin line of grass denoted the northern boundary of the Paul J. Rainey Wild-Life Sanctuary. An hour's chugging over the calm surface of the Bay brought us to the entrance of Deep Water Bayou, from which the canal opens to the south like a thin line of silver stretching away into the heart of the Sanctuary.

About three miles south from Deep Water Bayou stands the Rainey Club House and warden's camps which were erected several years ago for the accommodation of Mr. Rainey and his guests. They were built on the east bank of the canal at the entrance to Belle Isle Lake, the largest body of water on the Refuge, comprising some 300 acres and connected with a chain of lakes to the east running through the State Game Preserve. According to a contract executed at the time the assets of the Vermilion Bay Company were divided, these buildings passed to

Mrs. Rogers and were in turn transferred to the Audubon Society.

When we arrived at the club house, we discovered that Mr. McIlhenny had removed two of these buildings across the canal to his own property. He had also removed all the furniture from the club house and the permanent fixtures from the bathroom. The locks on all the closets and cupboards had been removed and piles of rubbish lay on the floors of all the rooms. In such manner has that great 'conservationist,' Edward A. McIlhenny, welcomed the advent of a new bird sanctuary on the Louisiana coast.

We swept the place and proceeded to establish the headquarters of the National Association of Audubon Societies on the Paul J. Rainey Wild-Life Sanctuary.

For several days we were very busy planting duck-food, as we wanted to get it into the water as soon as possible, owing to the intense heat and the perishable nature of the plants. They had been packed with great care in damp moss and were in good condition when they arrived at the Sanctuary, but it was quite important to attend to them at once, so the next day Hubert and I put a load of duck-food in our skiff and made a circuit of Belle Isle Lake, planting duck's meat and widgeon grass in all the coves along



SCENE ON THE VERMILION RIVER





HEADQUARTERS ON THE RAINEY SANCTUARY

the north shore. Returning at noon we got another load of duck-food and proceeded across Belle Isle Lake to Big Island Bayou which we explored to its source, planting duck's meat in every available locality.

Wapato and wild celery tubers have to be encased in clay balls for the purpose of giving them weight so they will sink through the

water and into the mud when they are put in the lake. Five or six tubers are put in each ball of clay, so we had quite a tedious time of it preparing them for planting. After they reach the bottom of the lake, the clay gradually disintegrates and the tubers take root in the mud.

For several days we continued the planting



THREADING A BAYOU ON THE RAINEY SANCTUARY



OFF FOR THE SOUTHERN END OF THE SANCTUARY

and explored many bayous and shallow lakes throughout the northern half of the preserve. We made several overland journeys, but the country was suffering greatly from drought and the extreme hot weather. All the little surface lakes which I had seen on my visit to the property in March were entirely dried up and their bottoms baked as hard as brick. We planted some millet and smartweed seed on a section of marshland about two miles south of the club house which did not seem to be quite so dry as the rest of the land. As soon as the early fall rains set in, this seed will germinate and we look for a good crop by the time the Ducks arrive from the North.

We made another trip to Abbeville and brought down some furniture for the club house and the rest of the duck-food which we had stored in the cold storage plant. Four or five days later we had all the plants safely in the lakes and sloughs, awaiting the action of sun and water and the mysterious workings of nature which transforms the acorn into the giant oak and makes possible the continuation of life throughout the world.

On July 4, we raised the American flag over the club house and it now flies daily from sunrise to sunset.

Just a little southeast of the extreme southern boundary of the Sanctuary lies the

settlement of Cheniere au Tigre. It is a little Creole village of some eighteen homes strung out along the coast on a live-oak ridge. During the summer months the population is considerably augmented by visitors from Abbeville and adjacent towns, who go to the coast for bathing and to enjoy the cool breezes which sweep in from the Gulf. One day Mr. Hubert and I took our little power boat and started for this place with the twofold object of inspecting the Sanctuary to the south of the club house and of having a dip in the salt water of the Gulf. While passing down the canal we had a good opportunity to observe the summer wild-life of the region.

The Dusky Duck or Southern Black Mallard breeds on the Sanctuary and we counted several small flocks which were moving restlessly across the sky. Upon rounding a bend, a Purple Gallinule swam ahead of the boat for a short distance and then turned sharply and disappeared in the reeds along the shore. Louisiana Clapper Rails appeared at several places, but the noise of the boat sent them scurrying into the grass. They breed on the Sanctuary and are quite prevalent there throughout the year.

One Snowy Heron and a number of Louisiana Herons darted out from the bushes



CLUB HOUSE AND WARDEN'S CAMP ON THE RAINEY SANCTUARY

along the banks of the canal, followed by their constant annoyers, the little King-birds, who attacked them ferociously and disturbed their flight considerably. King-birds were nesting in the low bushes along the canal and were not the least disturbed by the passing of the boat. The most interesting birds of all were the Least Bitterns. They

crouched close to the stems of the marsh-plants with which their plumage closely blended until the boat arrived within a few feet of them and then rose suddenly and flew just over our heads, to settle again in some secluded place. They looked for all the world like immature birds just learning to fly. The golden brown of their plumage, varie-



PLANTING WIDGEON GRASS





CANAL AT WESTERN BORDER OF SANCTUARY, SHOWING BUILDINGS (AT RIGHT)  
REMOVED BY E. A. McILHENNY

gated with dark glossy green, made them striking objects along the canal. Boat-tailed Grackles were greatly in evidence. These noisy and dull-plumaged birds were constantly rising about us and mingling with the hosts of Red-winged Blackbirds that occur in countless numbers all over the marshland.

The note of the Blackbird seems to personify the loneliness of the coastal marshes and when heard in late evening it comes as a sort of benediction after the heat of the day has passed and the cooler air of night is stirring among the rushes.

When we arrived at the end of the canal



RAPID TRANSIT AT CHENIERE AU TIGUE

and started to walk through a grove of live-oaks, the Cardinal made glad our passing with its cheery note and brightly colored body, flitting from branch to branch or flying across some opening in the grove—a vivid spot of scarlet against the sky.

The most important animal life of the marshes is represented by muskrats, minks, raccoons, and alligators. Muskrats raise four or five families in the course of a year and they comprise by far the largest population. Alligators lurked at several points along the canal and they are pretty widely distributed throughout all the waterways on the Sanctuary.

After our return from Cheniere au Tigre, we busied ourselves for several days with numerous matters about headquarters and then left for the North. Mr. B. R. Britton, Federal Game Warden, is now living in the club house and is supervising further arrange-

ments for the proper administration of the Sanctuary.

The Paul J. Rainey Wild-Life Sanctuary has been officially opened and now awaits the coming of its guests. Throughout the great Northland, waterfowl are stirring restlessly. In a few short weeks they will begin to stream southward to face a barrage of guns along their entire line of flight. Those that come through unscathed will sink gratefully into the old familiar marshes along the Louisiana coast. Some will dip into places where gunners are waiting for them, their ranks will be still further reduced, and they will be constantly harried by the boom of guns, but those that fold their wings and splash into the lakes and bayous on the Rainey Sanctuary will find a haven from all their dangers—a place where rest and food has been provided and where sunrise brings no terror and night no evil, a Sanctuary in truth.

## INFORMATION WANTED ON BIRD SANCTUARIES

A recent visitor to the Roosevelt Bird Sanctuary at Oyster Bay, Long Island, which was founded in 1923, asked if that Sanctuary was the first one to be named in memory of an individual and what other sanctuaries throughout the country have been named in honor of persons living or dead.

There are a number of sanctuaries antedating the Roosevelt one, notably the Mary Dutcher Memorial at Orange Lake, Florida,

which was established in 1911, but when we begin to look through the archives for further information, we are confronted by quite an array of refuges which have been named in commemoration of bird-lovers, so we are bringing this question to the attention of BIRD-LORE readers in the hope that they will send us any information they may possess in regard to sanctuaries of this nature.—EUGENE SWOPE, *Oyster Bay, N. Y.*

## GOOD AND BAD HAWKS

In recent propaganda put out by a number of conservation societies, powder companies, and state game commissions, in regard to the killing of vermin, both good and bad Hawks are described so that the hunter might be able to differentiate between the species that are harmful and those that are beneficial to mankind.

While this is a very good way to educate the public concerning the different varieties of Hawks, it leads to much confusion among the majority of hunters, as very few men are able to tell definitely and quickly just which

Hawk it is that suddenly flashes by them, and they are apt to kill the wrong kind.

A very much better way of accomplishing the end in view would be to call the attention of sportsmen to the two most destructive—namely the Cooper's and Sharp-shinned Hawks, so they may concentrate on these two and learn their markings, their manner of flight, and their size and shape. If the Hawk which suddenly appears does not show the characteristics of either these two birds, they should not shoot it.

The Sharp-shinned Hawk and Cooper's



FLORIDA GALLINULE  
From drawing by Robert J. Sina



Hawk are very much alike in appearance—the latter being a little larger. As a matter of fact, though a large female Cooper's Hawk is the size of a Crow, and a small male Sharp-shinned Hawk scarcely larger than a Blue Jay, male Cooper's and female Sharp-shinned are very much of a size, and many an individual can scarcely be assigned to the correct one of these two species except by an expert.

Fortunately, it is important only to know whether or not a Hawk is one of these two, not which of the two. Any outdoor person can easily learn to distinguish them from other Hawks. They are slender, have *short*, rounded wings and conspicuously *long* tails. Their swift flight, usually carried on at no great height from the ground, is characteristic—a few strong wing-strokes, alternating with a glide, with greater regularity than in other Hawks. Adults are blue-gray above and more or less reddish brown below; young,

dark brown above, and white, thickly spotted with dark, below. At close range the fine barring of their underwing surfaces is conspicuous. Their tails are crossed by broad, dark bands, rather contrasted with paler when seen from below. When they perch it is not in a conspicuous location but within the contour of a tree, more or less concealed by its branches or foliage.

The Goshawk, although rightly listed among the destructive Hawks, only appear in harmful numbers about once in every eight to ten years, so they may be left out of the reckoning.

If hunters would take a little time and visit some museum where all the Hawks are displayed they would soon be able to tell the Sharp-shinned and Cooper's Hawks when they see them, and with the characteristics of these two birds firmly fixed in their minds, a great deal of the promiscuous shooting of all Hawks would very soon cease.—J. P. H.

### CONTRIBUTIONS TO BUILDING FUND TO SEPTEMBER 1, 1924

Previously reported . . . . .	\$4,914 72	Carter, Samuel T., Jr. . . . .	\$1 00
Abbey, Mrs. F. R. . . . .	25 00	Castle, Montague . . . . .	5 00
Adams, William C. . . . .	5 00	Chamberlain, Arthur . . . . .	1 00
Adger, Miss Elizabeth J. . . . .	1 00	Cheney, Paul H. . . . .	1 00
Allee, Miss Dorothy D. . . . .	1 00	Clauder, Rudolph . . . . .	10 00
Althouse, H. W. . . . .	10 00	Conklin, J. Howell . . . . .	2 00
Ames, Mrs. J. P. . . . .	10 00	Cook, Frederick W. . . . .	1 00
Atwater, James B. . . . .	1 00	Crabbe, Mrs. Charles . . . . .	5 00
Andrews, Mrs. W. L. . . . .	5 00	Dake, Mrs. William Wood . . . . .	1 00
Arnold, Clarence M. . . . .	2 00	Dane, Mrs. Francis S. . . . .	1 00
Auchincloss, Mrs. E. S. . . . .	5 00	Day, Arthur P. . . . .	1 00
Baer, Miss Myrtle W. . . . .	1 00	Delano, Mrs. F. A. . . . .	10 00
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Capewell, George J., Jr. . . . .	5 00	Graham, Mrs. Thomas . . . . .	1 00
Carpenter, C. L. . . . .	10 00	Green, Mrs. Bernard R. . . . .	5 00
Carter, Mr. and Mrs. Richard B. . . . .	10 00	Greene, Gardiner . . . . .	1 00

## CONTRIBUTIONS TO BUILDING FUND TO SEPTEMBER 1, 1924, continued

Greenebaum, Mrs. James E. . . . .	\$5 00	Nichols, Mrs. Frederick . . . . .	\$1 00
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Harrison, Miss Jennie . . . . .	1 00	Potter, Hamilton Fish . . . . .	5 00
Harrison, Mrs. Perry . . . . .	1 00	Pulsifer, N. T. . . . .	1 00
Hart, Mrs. Jay H. . . . .	5 00	Redwood, Mrs. Francis T. . . . .	1 00
Harvey, Edward J. . . . .	5 00	Robb, Mrs. Emilie D. . . . .	5 00
Haselton, Mrs. A. S. . . . .	10 00	Robeson, Mrs. William F. . . . .	5 00
Haskins, Miss Susan F. . . . .	1 00	Rogers, Mrs. Hubert E. . . . .	5 00
Heurtley, Arthur . . . . .	5 00	Rogers, William B. . . . .	5 00
Hillhouse, Mrs. James . . . . .	5 00	Russell, Mrs. Emily L. . . . .	5 00
Hoe, Mr. and Mrs. Richard M. . . . .	1,000 00	Saul, Charles R. . . . .	5 00
Hoover, Jos. W. . . . .	10 00	Savannah Audubon Society . . . . .	25 00
Horton, L. M. . . . .	3 00	Schroder, William H. . . . .	2 00
Howland, Miss C. E. . . . .	1 00	Seeler, Mrs. Edgar V. . . . .	5 00
"A Friend" . . . . .	5 00	Sheble, Mrs. Frank J. . . . .	5 00
Iglehart, Mrs. F. N. . . . .	5 00	Sherrill, A. P. . . . .	1 00
Interest on Contributions . . . . .	49 39	Short, William . . . . .	20 00
Jacobs, Miss Matilda . . . . .	2 00	Shove, E. P. . . . .	1 00
Jonas, James A. . . . .	1 00	Smith, Francis Drexel . . . . .	10 00
Jones, Mrs. Adam L. . . . .	5 00	Smith, H. Alexander . . . . .	1 00
Kirkham, Mrs. J. W. . . . .	1 00	Squibb, Dr. Edward H. . . . .	15 00
Kittredge, S. Dana . . . . .	1 00	Stevens, Mrs. F. W. . . . .	5 00
Klaber, Mrs. Maurice . . . . .	1 00	Stinson, Mrs. C. E. . . . .	1 00
Korth, Mrs. Arthur . . . . .	5 00	Struthers, Miss Mary S. . . . .	5 00
Kuser, John Dryden . . . . .	25 00	Tappan, Mrs. Walter H. . . . .	1 00
Lawrence, Miss Emma A. . . . .	1 00	Thaxter, John . . . . .	5 00
Lester, Mrs. Joseph H. . . . .	1 00	Townsend, R. Elmer . . . . .	1 00
Levering, Mrs. Harriet . . . . .	10 00	Valentine, Mrs. Grace E. . . . .	1 00
Linn, Mrs. W. R. . . . .	1 00	Voigtlander, George . . . . .	5 00
Litchfield, Mrs. Grace Denio . . . . .	1 00	Warren, George C. . . . .	5 00
McCord, Mrs. W. E. . . . .	5 00	Weil, Mrs. Harriet . . . . .	1 00
McKittrick, T. H., Jr. . . . .	5 00	Western Virginia Audubon Society . . . . .	5 00
Martin, Mrs. Edward . . . . .	2 00	Wheeler, Charles . . . . .	1 00
Matthies, Miss Katharine . . . . .	10 00	Wilson, Mrs. G. G. . . . .	2 00
Means, Mrs. O. W. . . . .	5 00	Winthrop, Beekman . . . . .	1 00
Morris, Mrs. J. B. . . . .	10 00	Zimmerman, Miss A. W. . . . .	10 00
Moyer, Albert . . . . .	1 00		
Newberry, Mrs. Wolcott E. . . . .	5 00		
			\$6,726 11

## NEW LIFE MEMBERS

Fee, \$100

Enrolled from July 1 to September 1, 1924

Alvord, Miss Muriel  
 Arrott, Robert F.  
 Berry, Mrs. John  
 Brown, Mrs. William Clark  
 Capewell, George J., Jr.  
 Christy, Bayard H.  
 Embury, Miss Emma C.  
 Hart, Mrs. Jay H.  
 Holt, Miss Celia  
 Mengel, Mrs. Charles C.  
 Nichols, Mrs. Acosta

Pack, Mr. and Mrs. Arthur N.  
 Radcliffe, Mrs. Wallace  
 Randall, Miss Amanda L.  
 Sansome, Mrs. F. A.  
 Simes, Miss Olive  
 Swope, Mrs. Mabel M.  
 Tracy, Miss Anne H.  
 Underwood, Miss Mabel W.  
 Welsh, Miss Elizabeth R.  
 Woolley, Mrs. Park M.

## NEW SUSTAINING MEMBERS

Fee, \$5 Annually

Enrolled from July 1 to September 1, 1924

Atkinson, H. W.  
 Baasch, K. W.  
 Beck, Herbert H.  
 Bieber, Rev. Dr. M. J.  
 Boggs, Fenton  
 Bovey, Martin Koon  
 Brayer, Mrs. N. G.  
 Brown, Mrs. Donaldson  
 Buskirk, Allen V.  
 Carter, George W.  
 Crocker, Mrs. C. Frank  
 Daley, Mrs. Edwin Wood  
 Daniel, Dr. Annie S.  
 DeShon, Miss Carolyn  
 Edwards, B. H.  
 Fessenden, Mrs. F. J.  
 Figgatt, Mrs. T. C.  
 Finehout, John W.  
 Flagg, Mrs. Montague  
 Foot, Mrs. Homer  
 Gerow, Joshua R., Jr.  
 Golden, R. N.  
 Gresham, Mrs. Thomas B.  
 Grimm, E. L.  
 Harding, Mrs. C. K.  
 Harris, Mrs. Gordon L.  
 Hauk, Rev. D. C.  
 Hess, Geo. H., Jr.  
 Hibbard, C. J.  
 Hyde, C. Pruyne  
 Ingersoll, Miss Marion C.  
 Jackson, R. A.  
 Keyworth, Mrs. R. G.  
 Kohl, Mrs. Charles E., Jr.  
 Kuchle, Gustav E.  
 Lindsley, Henry D.  
 Lips, Mrs. C. F.

Lockwood, Mrs. Mary Isabel  
 Lyon, Chas. B.  
 McDonald, M. H.  
 Mackown, Geo. M.  
 Matheson, C. W.  
 Mayo, E. D.  
 Metcalf, Jesse  
 Meyer, Adolph F.  
 Mornell, Paul  
 Muller, Miss Meta  
 Ormsbee, M. H.  
 Perkins, Miss Hattie W.  
 Phillips, Miss Edna  
 Ridley, Miss Jessie  
 Rush, Mrs. Alice M.  
 Sabor, Russell  
 Schlak, Mrs. Carrie J.  
 Scott, John Duer  
 Smith, Miss Josephine E.  
 Smith, W. J.  
 Smitton, Mrs. G. H.  
 "Cash"  
 Storer, John H.  
 Stubbs, H. W.  
 Sulloway, Frank J.  
 Taylor, Benj. I.  
 Tweed, Miss Mary W.  
 Tyler, Windsor M.  
 Vandewater, Miss Virginia T.  
 Wack, Mrs. T. J. de Blois  
 Wait, Miss Etta M.  
 Wamsley, W. D.  
 Walter, J. B.  
 Ward, John  
 Wilde, Miss Bertha B.  
 Wittich, Dr. F. W.  
 Zinn, Mrs. F. M.







1. RUFOUS HUMMING BIRD  
ADULT MALE, IMMATURE MALE, FEMALE

2. ALLEN'S HUMMING BIRD  
ADULT MALE, IMMATURE MALE, FEMALE

3. BROAD-TAILED HUMMING BIRD  
ADULT MALE, FEMALE